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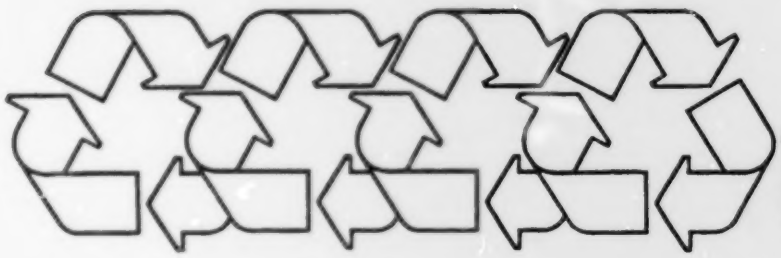
ACTION PLAN



A Waste Minimization Strategy for Manitoba in the 1990's

Final report of
The Manitoba Recycling Action Committee
May 1990

RECYCLING ACTION COMMITTEE

Manitoba Environment

90-07150/

Minister of
Environment

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

June 6, 1990

Fellow Manitobans:

It is with great pleasure that I am publicly releasing the Recycling Action Committee's Action Plan.

The Action Plan represents the culmination of a process that has directly involved the input of hundreds of Manitobans. Over the past year, I have been very impressed by the widespread commitment that is held for taking environmentally responsible action. It is a commitment that the Manitoba Government shares.

The Action Committee has responded to the challenge I gave them in June 1989 to develop a strategy for reducing waste and promoting recycling. Their recommendations provide both a long-term strategic plan and guidance for short-term action.

The Manitoba Government has pledged to take action to make the stated goal of a 50% reduction in waste a reality. So that actions can be initiated in the coming months, the Action Plan recommendations will be quickly reviewed as part of the Province's sustainable development initiative.

The Action Plan stresses cooperation, and shared responsibility. I look forward to your participation in the process of accomplishing our common goals, and ensuring our common future.

Sincerely,

J. Glen Cummings
Minister

MANITOBA RECYCLING ACTION COMMITTEE
960 - 330 St. Mary Avenue **Telephone: (204) 945-8443**
Winnipeg, Manitoba R3C 3Z5 **Facsimile: (204) 945-1211**

April 30, 1990

Honourable J. Glen Cummings
Minister of Environment
Room 344, Legislative Building
Winnipeg, Manitoba
R3C 0V8

Dear Mr. Cummings:

We respectfully submit the final draft of the Recycling Action Committee's Action Plan. The report represents a consensus position and reflects the extensive consultation, investigation and discussion that the Committee has pursued. Where members have chosen to dissent on specific recommendations, they have summarized these viewpoints in correspondence appended to the report.

Sincerely,

Dr. Robert Fenton

Jerry Spiegel

* John Amor

Joyce Agar

John Barker

Stuart Clark

Jim Ferguson

David Henderson

Jenny Hillard

Tony Kuluk

Jack Lazarenk

* Lance Morrison

Dr. Ian Rollo

Dave Shefford

Henry Wiebe

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For additional copies of the Action Plan, contact:
Recycling Action Committee c/o, Manitoba Environment,
960 - 330 St. Mary Ave., Winnipeg, MB R3C 3Z5.
Phone: (204) 945-8443.

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SUMMARY OF RECOMMENDATIONS

1. That the **Minister of Environment** continue to use a multi-stakeholder approach to implement the measures called for in this Action Plan.
2. That the **Manitoba Government** adopt the term "Waste Minimization Strategy" rather than a recycling strategy. Waste minimization acknowledges that Reduction and Reuse are preferable to Recycling.
3. That the **Minister of Environment** set a waste reduction goal of a 50% reduction of the 1988 per capita waste flows to landfills by January 1, 2000; and that specific targets be established for several major subcategories of waste.
4. That the **Minister of Environment** endorse the principle of a continuing goal to reduce waste in each subsequent decade.
5. That the **Minister of Environment** specify a mid-term goal of a 20% reduction of the 1988 per capita waste flows to landfills by January 1, 1995, with appropriate, specific, mid-term targets for several major subcategories.
6. That **Manitoba Environment** undertake province-wide analysis of the nature of wastes entering the landfills to assist in setting the targets. Results of the analysis should be made available to stakeholders and the public.
7. That the **Minister of Environment** negotiate waste reduction targets with stakeholders in order to accomplish the interim and year 2000 goals. The bases of negotiation should include: the proportion of the product or material in the waste stream, toxicity or other problems created in the landfill, the level of public concern, ease of reduction, and the environmental significance of the product or material.
8. If the **Minister of Environment** fails in negotiating mutually agreed waste reduction targets, then Manitoba Environment should impose them. Stakeholders should have a right to appeal these imposed targets to an independent arbitration panel. The major test of the appeal should be the reasonableness of the targets.
9. That the **Minister of Environment** in the annual Waste Reduction And Prevention Strategy Report provide details of the implementation of the Recycling Action Committee's Waste Minimization Strategy.
10. That the "4-R's" in the RAC mandate be expanded to the "6-R's", by including Residue Management and Shared Responsibility, for the purpose of implementing the Waste Minimization Strategy. Wherever practical, the "4-R's" should be implemented in order of Reduction, Reuse, Recycle and Recover.
11. That the **Minister of Environment** consult urgently on ways and means of overcoming the threat to the viability of industrial recycling operations faced with the need to dispose of their residual wastes.

12. That the **Minister of Environment** recommend to the Manitoba Round Table that "Waste Minimization and Recycling" be the topic of a substrategy component of its Sustainable Development Strategy, rather than Recycling and Waste Management.

13. That the **Minister of Environment** recommend that the Manitoba Round Table adopt this Action Plan as a substrategy report.

14. That the **Manitoba Government** publicly report the adoption of this Waste Minimization Strategy in June 1990 and report on the products to be given priority waste reduction targets by January 1, 1991.

15. That the **Minister of Environment** set the sales threshold level requiring a distributor's participation in a waste reduction plan. The level could vary and would be set as part of the negotiation of waste reduction targets.

16. That **Manitoba Environment** develop criteria for evaluating Waste Minimization Plans according to the principles of this Strategy.

17. That the **Manitoba Government** and its agencies develop Waste Minimization Action Plans for their activities.

18. That the **Manitoba Government** require all municipalities and school boards in the province to develop Waste Minimization Action Plans.

19. That the **Manitoba Government** enter into negotiations with the Government of Canada to develop Plans for its wastes where appropriate.

20. That the **Manitoba Government** establish an incentive program to encourage early achievement of targets and milestones. The incentive would be permission to use a recognition format adopted and promoted by the government.

21. That the **Manitoba Government** require distributors who have not filed Waste Minimization Action Plans by the specified date to post an appropriate performance bond. The bond would be forfeited if the distributor failed to meet the interim targets and milestones.

22. That the **Manitoba Government** establish appropriate predisposal levies for all products distributed in Manitoba for which waste reduction targets or milestones are not met. The levy would be scaled according to the level of non-performance and importance of the goods in the waste stream. The distributor of the products is liable for payment of the levy.

23. That the **Manitoba Government** ensure that the proceeds of any such levies or forfeited bonds be used for waste minimization purposes.

24. That prior to June 1, 1991 the **Minister of Environment** negotiate waste reduction targets for automotive tires, used motor oils and storage batteries to achieve a high level of waste reduction before June 1, 1993.

25. That **Manitoba Environment**, in cooperation with distributors and other stakeholders, undertake an immediate analysis of the impact of disposable diapers. All stakeholders should be represented in the design and execution of the study and in the negotiation of any targets. Interim targets or milestones should be achieved by June 1, 1993.

26. That the **Minister of Environment** make negotiation of high waste reduction targets for the newspaper publishing industry a priority. Interim targets should be achieved by June 1, 1993.

27. That the **Minister of Environment** convene an advisory committee to develop and implement a waste reduction plan for corrugated cardboard and commercial waste papers. The advisory committee should develop a strategy to achieve a high reduction in waste, with interim targets to be achieved by June 1, 1993.

28. That the **Minister of Environment** establish a committee to prepare a viable strategy on composting by January 1991. The committee should review existing operations and include representatives of the provincial and municipal governments, universities and community organizations. Interim targets should be achieved by June 1, 1993.

29. That the **Minister of Environment** convene early discussions with all components of the "beverage industry" and other stakeholders, to develop an enhanced program for the industry. Existing accomplishments should be sustained and new targets and achievements identified. Discussions should be concluded and implementation begun not later than June 1, 1991.

30. That **Manitoba Environment**, in co-operation with other stakeholders, ensure that a province-wide community outreach program be actively pursued and coordinated including: materials and speakers on waste minimization and recycling, a quarterly newsletter to promote waste minimization and recycling, a toll-free "hot line" with consumer information on recycling opportunities, an anti-litter campaign, and establishment of a resource centre for ready access to information and material from Manitoba and elsewhere.

31. That **Manitoba Environment**, in consultation with the **Department of Education and Training** and interested organizations, develop materials and activities to be integrated into existing K-12 curricula.

32. That the **Manitoba Government** negotiate with **School Boards** to promote the adoption and implementation of waste minimization and recycling plans to demonstrate issues and options included in the school curricula.

33. That the **Minister of Environment** consult with the **Minister of Education and Training** to ensure that waste minimization is thoroughly integrated in post-secondary education and training programs.

34. That the **Manitoba Government** encourage Manitoba based manufacturers to include recycled materials in their products where possible.

35. That the **Manitoba Government** encourage Manitoba distributors to provide products containing recycled materials.

36. That the **Minister of Environment** designate a "grassroots coordinating agency" for waste minimization following consultations with community, environmental, business, and municipal organizations. This "agency" should be representative of geographic and sectoral interests in the province and serve as a forum for the debate of waste minimization and recycling issues.

37. That the **Minister of Environment** set as a priority the demonstration of effective and efficient approaches to waste minimization so that these can be implemented as part of this strategy by January 1, 1993.

38. That the **Minister of Environment** consult with stakeholders on the establishment of clear criteria to evaluate infrastructure development and demonstration. These criteria could also be used to evaluate requests for financial aid in support of waste minimization projects.

39. That the **Manitoba Government** establish a Waste Minimization Trust Fund to provide financial aid for qualified projects demonstrating waste minimization opportunities and furthering education on waste minimization. Further, that the **Board of Trustees** invite, business, other governments and private donors to contribute to the Trust Fund.

40. That **Manitoba Environment** ensure that the implementation of the new, proposed, Waste Disposal Grounds regulations contribute to the success of the Waste Minimization Strategy.

41. That the **Manitoba Government** encourage municipalities and **Local Government Districts** to form waste minimization regions or districts.

42. That **Manitoba Environment** make consolidation of Waste Disposal Grounds a "principle of application" for the regulations.

43. That the **Manitoba Government** amend the Municipal Act, and any related Acts, to permit charging a fee for collection and handling of wastes on a quantity related basis.

44. That the **Manitoba Government** actively encourage municipalities to levy charges for waste collection and handling on the basis of volume of waste identified and substantiated rather than paying for this service through property taxes.

45. That the **Manitoba Government** provide financial and technical assistance to municipalities to develop waste minimization plans. To be eligible for assistance, consideration must be given to regional cooperation on waste disposal grounds, user fees, and the provision of waste reduction facilities, transfer stations and composting.

46. That the **Manitoba Government** give the **Interdepartmental Procurement Committee** a continuing mandate to identify additional opportunities to purchase environmentally responsible products. The existence of that Committee and the procurement policy should be widely publicized.

47. That the **Manitoba Government** tender for recycling services to contribute to the successful implementation of this Strategy.

48. That the **Manitoba Government** require, as a minimum standard, the adoption of its procurement policy as a requirement for receiving provincial fund[illegible] in excess of $100,000.

49. That all **Provincial Crown Corporations** be required to adopt the procurement policy specified above.

50. That the **Manitoba Government** initiate discussion with the **Federal Government** to put policies in place, and provide funds, to encourage research and development in Manitoba into waste reduction with attendant increase in knowledge and expertise, and industrial potential in the area of environmental sustainability.

51. That the **Manitoba Government** designate an existing agency to coordinate the development of products and processes which could use secondary materials from Manitoba's waste stream.

52. That the **Manitoba Government** support national initiatives to encourage the use of recycled materials in products, but not set minimum content criteria.

53. That the **Manitoba Government** investigate and implement a program to rebate Manitoba Provincial Sales Tax paid on future purchases of waste minimization equipment.

54. That **Manitoba Environment** be given sufficient additional resources to properly implement the elements of the Waste Minimization Strategy.

55. That the **Manitoba Government** ensure that all the funds raised by the Environmental Protection Tax announced in the 1989 Provincial Budget be used to implement this Waste Minimization Strategy.

56. That the **Manitoba Government** investigate and secure other funding sources (as required) to implement this Strategy in the longer term.

1. INTRODUCTION

In June of 1989 the Manitoba Minister of Environment, Honourable Glen Cummings, established the **Manitoba Recycling Action Committee**. Mr. Cummings asked the Committee to advise him on how the Province should meet a goal set for the year 2000 of a 50 percent reduction in solid waste generated in the province. The Minister instructed the Committee to develop the Strategy "in the context of the "4-R's" — Reduce, Reuse, Recycle and Recover". The full terms of reference are included in Appendix A.

The Manitoba Recycling Action Committee has fourteen members representing a broad spectrum of stakeholder interests. The complete membership of the Committee is listed in Appendix B.

Public Consultation

The Minister's instructions also called for broad consultation with both the general public and key stakeholders, to work towards a consensus on the Committee's recommendations. We have reached consensus on many aspects of the recommendations. Where we have not, dissenting opinions have been provided, in an Addendum, by those having reservations about a particular recommendation.

A draft strategy was reviewed in March 1990 at the Conserving Our Future Conference sponsored by the Committee. The conference attracted a large audience of 450 and provided an opportunity for the Committee to hear the opinions and suggestions of the public and stakeholders about the draft Waste Minimization Strategy.

The Committee had previously received the views of the public at a series of Town Hall Meetings held in the fall. About 800 persons discussed their concerns and priorities with the Committee during the eight Meetings and four mini-presentations that were held throughout the province.

The Committee believes that the open consultative nature of our deliberations has been useful. We believe that subsequent stages of the policy development and implementation should also be done on a consultative basis. The Committee has discussed options for continuing the consultation process and specific recommendations are presented later. For now we wish to emphasize that the principle of broad consultation and multi-stakeholder negotiation underlies many of the recommendations below. The principle should be assumed to apply unless otherwise stated.

RECOMMENDATION 1: That the **Minister of Environment** continue to use a multi-stakeholder approach to implement the measures called for in this Action Plan.

The Basic Strategy

The basic strategy of the Action Plan is to see that individuals and groups in society accept their responsibility for waste minimization. Government is responsible for minimizing its waste and accountable for ensuring that the rest of us accept our responsibilities.

The Strategy is designed to achieve the Minister's goal of a 50 percent reduction of waste before 2000. This is defined as a 50 percent reduction in the per capita amount of waste going to the landfill by 2000 compared to the 1988 amount. The Committee recommends that waste reduction be made a continuing goal. A waste reduction target for the 2010 per capita amount of waste going to landfill would be set before the year 2000.

The distribution chain, or the people and companies who sell products in Manitoba, are asked to accept the responsibility for waste minimization for that product. The responsibility is aimed at "the distributor (brand-owner) of a product in Manitoba". This includes products manufactured outside the province and sold here, as well as those manufactured here and sold in Manitoba. Manufacturers of products destined for sale outside the province would be responsible for the waste generated in Manitoba. Wastes such as household yard wastes and wastes collected by government from parks and green spaces, which are normally sent to a landfill, will be the responsibility of the government collecting them.

The emphasis of the Strategy has been broadened to waste minimization. It highlights the priority to be given to source reduction of waste and to reuse activities. Recycling is a valuable process for wastes which haven't been reduced. Recycling has a cost in both money and resource terms and should not be wasted on unnecessary activities.

The Strategy calls for each distribution chain to achieve a specific waste reduction target in order to contribute to the overall goal. Targets for broad product groups will be negotiated between the stakeholders and the government. The Strategy provides for the filing of Waste Minimization Action Plans, and has provision for interim targets, for incentives, for compliance evaluation and for penalties. The distributor accepts responsibility to reach the target by a mix of source reduction, reuse, recycling and recovery activities best suited to their product. The mix will be agreed upon in a Waste Minimization Action Plan filed with the Department of the Environment.

The focus on the year 2000 and the emphasis on responsibility of the distributor gives the plan a longer run view. Several priority products and product groups have been identified for early action. Transitional arrangements to make use of the broad public support for waste minimization have also been identified.

This **Action Plan** contains eight sections including this Introduction (Section 1).

Section 2 discusses the 50% waste reduction goal and introduces the concept of a Waste Minimization Strategy rather than a recycling plan.

Section 3 identifies the need to set waste reduction targets to help plan for the achievement of the 50% goal. It also suggests criteria and ways for setting the targets.

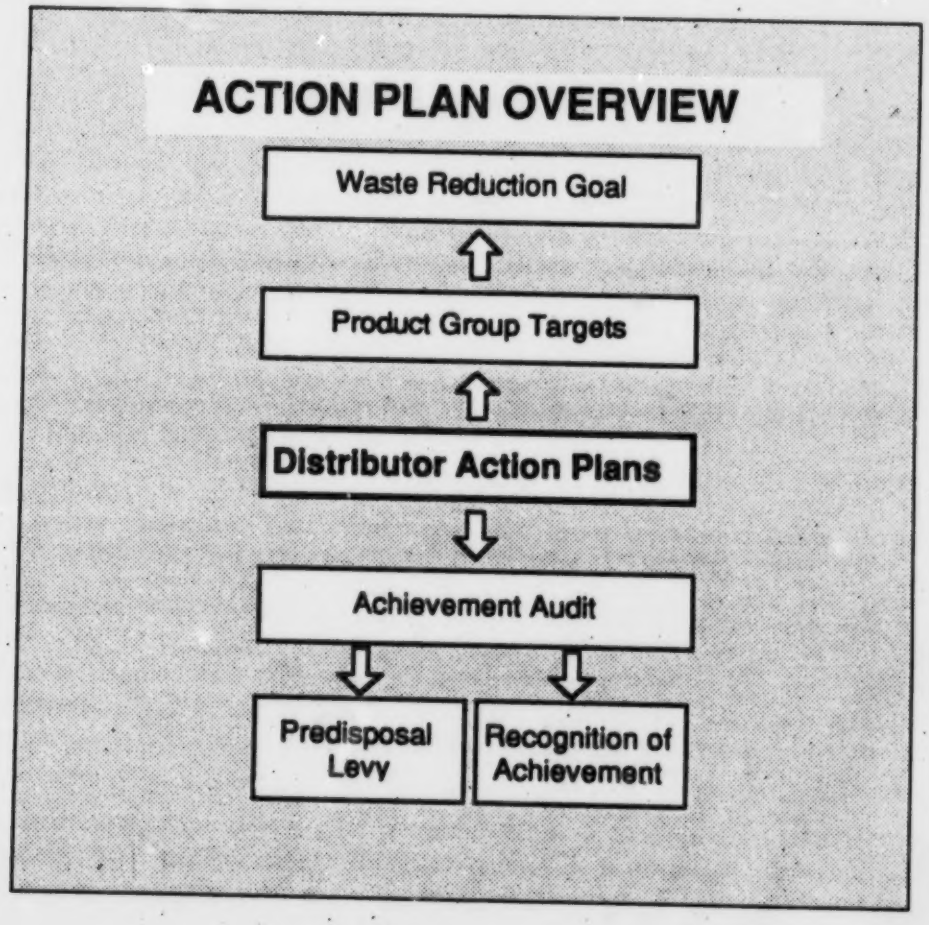
Section 4 identifies and interprets the principles underlying the Waste Minimization Strategy. The importance of the Strategy to the concept of sustainable development is also discussed, as is the principle of "distributor" responsibility.

Section 5 presents the Waste Minimization Strategy and the responsibilities identified for various groups. A compliance incentive plan is proposed as are penalties for non-achievement of reduction targets. Products deserving priority for the implementation of the Strategy are also identified.

Section 6 makes recommendations concerning educational initiatives designed to support the Strategy. Some of these proposals are focused at the K-12 educational system, some at the post-secondary system and others at the general public and information dissemination.

Section 7 examines the need for market and system development to support the Strategy. The urgent short run need to coordinate and focus the present enthusiasm of the general public and the grassroots organizations to achieve the long run strategy is also noted. A Trust Fund to support waste minimization demonstration projects and a multi-stakeholder association ("grassroots coordinating agency") are proposed to provide coordination and focus for grassroots recycling and educational activities.

Section 8 provides a final word and identifies the need for expansion of the funds and resources provided to Manitoba Environment for the implementation this Strategy. Suggestions for raising the necessary funds are also made.



2. WASTE REDUCTION GOAL

Basic Goal

Manitoba's Minister of the Environment, Honourable Glen Cummings, has adopted a goal for Manitoba of a 50% reduction in solid waste by the year 2000. The Recycling Action Committee's Strategy is designed to achieve that goal.

The Committee interprets this goal to mean that by January 1, 2000 the amount of waste generated per person in the province shall be 50% less than it was in 1988 — about 500 kg per person rather than the approximately 1000 kg per person at the present time. This includes municipal solid waste from all sources, including residential, commercial, industrial and municipal. It includes materials from obsolete, broken, used or discarded products from the consumer, commercial and industrial sectors, yard wastes (leaves and grass clippings), and construction wastes, building demolition wastes, construction materials and paving materials. The weight of materials discarded shall be the basis for the evaluation of the achievement of the goal.

To achieve our waste reduction goal many things we presently treat as waste will be diverted from the waste stream by using one of the "4-R" activities — Reduce, Reuse, Recycle, and Recover.

The Committee's opinion is that waste reduction should continue beyond the year 2000, in the sense that an objective to continue waste reduction be set for the years beyond 2000. Conditions in the year 2000 will determine whether a different waste reduction goal is desirable for the year 2010. The important feature is to establish an on-going perspective so that waste reduction becomes an integral part of a sustainable development strategy for the province in which environmental and economic planning are truly integrated.

The goal presented above is consistent with goals being established in other Canadian provinces and in the United States. For instance, in January 1989 the Ontario Recycling Advisory Committee, in recommending a 50% reduction of the weight of municipal solid waste by the year 2000, clarified the goal by saying:

> "establishment of any waste reduction goal should also be based upon a given base year, with adjustments made for population growth and quantities of materials already recovered from municipal solid waste for recycling."

As another example, Alameda County, California will place a proposal before voters in June 1990 which sets a goal for the year 2000 of a 50% reduction in the weight of materials otherwise discarded at landfills or incinerators. Waste reduction, recycling and composting activities will serve to reduce the amounts discarded at landfills and incinerators. This proposal is consistent with the California Integrated Waste Management Act of 1990.

The Committee's proposal reflects the need to adjust for population growth by adopting a goal based on per capita waste generation rates. The proposal makes no adjustment for present recycling efforts, such as our scrap metal industry which handles the equivalent

of up to 30% of Manitoba's waste stream every year. We are not overlooking the significant activities presently under way in Manitoba. By focusing on the amount of waste generated per person, we do not need to make such adjustments to make our goal meaningful.

Many observers who have witnessed the promotional efforts for the "Blue-Box" residential curbside recycling programs in Ontario, Alberta and British Columbia as well as in several of the States will question whether significant material recycling is under way in Manitoba at the present time. The following Table illustrates some of the recycling activities currently under way in the province.

Some Recycling Activities in Manitoba

- **Scrap Metal Industry**
  - Approximately 40 firms, more than 1,000 employed
  - Between 200,000 and 300,000 tonnes processed every year
- **Paper**
  - Three paper mills consuming waste paper
  - Three cellulose fibre insulation manufacturers
  - Seven firms shipping waste paper to processing plants out-of-province
- **Aluminum Beverage Cans**
  - Several firms shipping to out-of-province processing plants
  - Many firms operating buy-back centres including scrap metal dealers and Manitoba Soft Drink Recycling (MSDR), as well as, deposit/return through beer vendors
- **Glass**
  - Non-deposit liquor containers are purchased at buy back centres by MSDR
  - One firm recycles window and plate glass and one firm is purchasing glass containers for recycling out of province
- **PET Plastic Beverage Containers**
  - Shipped to out-of-province processors by MSDR
  - Several firms operate buy-back centres for these containers

Reducing waste makes economic and environmental sense for business. Many Manitoba firms have reduced waste as a part of their business activities. For instance, several major packaging firms competing in international markets are located in Manitoba. These firms have reduced the thickness of their packaging materials and hence the weight of their packages. Such changes reduce the amount of materials consumed in packaging and also reduce the weight of materials to be discarded.

For example, one of these firms has already reduced the weight of packaging for a convenience food by 65% for 1000 packaging units. Another example of weight reduction in packaging arises in the beverage industry. Over the last several years the number of aluminum beverage cans required to obtain credit for a pound weight of aluminum at the buy-back centres has risen from 24 to 30, an increase of 25%. The reduction in weight per can implied by this change again results in a reduction in the amount of resources consumed in the packaging and also in a reduction of the weight of material which potentially could become waste. These examples are intended only to show what can be done; not to show that we should be complacent and rest on achievements to date.

Waste Minimization Strategy

The Committee's proposal moves the Province beyond a limited set of recycling objectives toward a **Waste Minimization Strategy**. This advancement is very much in the forefront of thinking on the issue. For instance, a report prepared by consultants to the Solid Waste Management Division of the Metropolitan Toronto Department of Works (May 1988) outlines two distinct but compatible strategies for Metro Toronto - a Waste Reduction Strategy and a Waste Recycling Strategy. These strategies are designed to move Metro beyond the existing curbside collection programs that are now under way in the region.

The report of The Ontario Recycling Advisory Committee (January 1989) includes a major section entitled, "Guiding Principles for Development of a Comprehensive Recycling Strategy". An important guiding principle is waste reduction and minimization. The report states:

> "Ontario, like other jurisdictions throughout North America, is wrestling with some fundamental issues that must be addressed in the transition to higher order waste management practices. **Such a transition cannot be achieved simply by adding another level of collection service for a limited number of waste products that are currently considered to be recyclable."** (emphasis added)
>
> "Developing a sustainable waste reduction strategy will require a major shift in the beliefs and attitudes, as well as the waste management behaviour of both producers and consumers in the province. Responsible waste management services are an essential social mechanism and the cost of developing these services should be absorbed by all sectors. Changes may also be required in product design and manufacture to minimize waste. Local governments must institutionalize the practices of recycling as an integral component of the waste management services they provide. **And the Province must set the clear policy goals now required to support the further evolution of waste management in Ontario."** (emphasis added)

Thus, a **Waste Minimization Strategy** in Manitoba would be called a **Comprehensive Recycling Strategy** in Ontario.

Concern about minimizing waste is common across Canada, and most provinces are examining a change of policy in this area. Alberta recently adopted the goal of 50% waste reduction, although the excellent series of reports on recycling in Alberta prepared by the Alberta Environmental Council (1987) contained no quantitative goals for waste reduction.

The report of the British Columbia Municipal Solid Waste Management Task Force, March 1989, called for that province to adopt Reduce, Reuse, Recycle, Recover and Residue management as its objectives. British Columbia, however, expressed its goals for municipal waste reduction solely in terms of recycling and composting. Again British Columbia has set no goal for activities which reduce waste at the generation source. Reducing waste at source, particularly for commercial and industrial wastes, will be important if the 50% goal is to be reached.

Achieving Goals

With waste minimization as the basis of our goal, actual measurements may be taken to evaluate progress toward, and achievement of, the 50% reduction in waste. Measurements taken at the landfill gate can determine the per capita amount of materials being deposited in the landfill. If the volume approximates 500 kg per capita in 2000, the goals of the action plan will have been achieved. Additional information on municipal expenditures on litter control, the extent of illegal dumping and unlicensed dumping sites will also be useful. The major criterion for judging success will be the per capita amount of materials being landfilled.

A number of criteria presently being used in other jurisdictions to describe the success of recycling programs will not be appropriate for the Manitoba situation. Numbers of households participating in curbside collection, numbers of vehicles dropping-off materials at collection depots, percentage of containers returned for deposit or bought back at redemption centres will provide interesting data on the process, but will not measure the success of the program.

By focusing on waste reduction goals and accomplishments, those held responsible will be able to choose among source reduction, reuse, recycling or recovery as the preferred methods of achieving the required reduction in per capita amount of waste generated. The chosen mix should represent the most effective method of achievement in terms of costs, impacts and diversion levels. Environmental monitoring and assessment of these activities will be important as they are for any other element of economic activity.

Important to remember is that the 50% waste reduction is a goal not a ceiling. Waste reduction is a major requirement for both economic efficiency and environmental efficiency and will be a major focus for a sustainable development strategy. A waste reduction goal for the subsequent decade will remind us to strive for additional waste reduction even if the 50% goal is reached before 2000.

RECOMMENDATION 2: That the **Manitoba Government** adopt the term "Waste Minimization Strategy" rather than a recycling strategy. Waste minimization acknowledges that Reduction and Reuse are preferable to Recycling.

RECOMMENDATION 3: That the **Minister of Environment** set a waste reduction goal of a 50% reduction of the 1988 per capita waste flows to landfills by January 1, 2000, and that specific targets be established for several major subcategories of waste.

RECOMMENDATION 4: That the Minister of Environment endorse the principle of a continuing goal to reduce waste in each subsequent decade.

Interim Goals

The goal of a 50% reduction by the year 2000 will seem very distant and inadequate to environmental activists who desire immediate short term results. However, the changes being sought are major and fundamental revisions to the way in which Manitobans behave. In order to accomplish these revisions, changes must be made in existing infrastructure and facilities, new facilities must be built and indeed some new technologies will need to be developed.

There are risks in pushing ahead too quickly on the easily accomplished portions of the task, such as collection of recyclables, without first addressing some of the more difficult portions, such as developing new processing technologies and expanding local markets for secondary materials. These risks are amply displayed in some of the curbside collection programs implemented in Canada and the United States which have overwhelmed the available markets with the volumes of material collected and in some cases contaminated the processing system with poor quality materials. The results have been additional cost, confusion, and in some instances, disillusion with the viability of recycling and waste reduction.

An interim goal for 1995 will provide some urgency to the process. It will encourage us to undertake steps that could have significant impact in the short-run while providing a measure of our progress toward the longer-term goal.

It could be reasonably argued that a mid-term goal that is somewhat higher or lower than 25% be established. Some observers will predict that many easy opportunities exist now to make significant reductions and that the more difficult gains will not be attempted until the end of the decade. These observers would then argue for a higher mid-term goal of 30%.

On the other hand, many observers will point to the logistical difficulties of getting a revised system in place and predict that implementation delays will occur. After the system is streamlined, great strides can be made very quickly. Such observers might argue for a mid-term goal of 12 -15%.

The Committee agrees that an interim goal of a 20% reduction of the 1988 per capita waste levels by January 1, 1995 is reasonable. It encourages early activity while giving us time to develop the facilities required to accelerate our waste reduction achievements between 1995 and 2000.

RECOMMENDATION 5: That the Minister of Environment specify a mid-term goal of a 20% reduction of the 1988 per capita waste flows to landfills by January 1, 1995, with appropriate, specific, mid-term targets for several major subcategories.

3. WASTE REDUCTION TARGETS

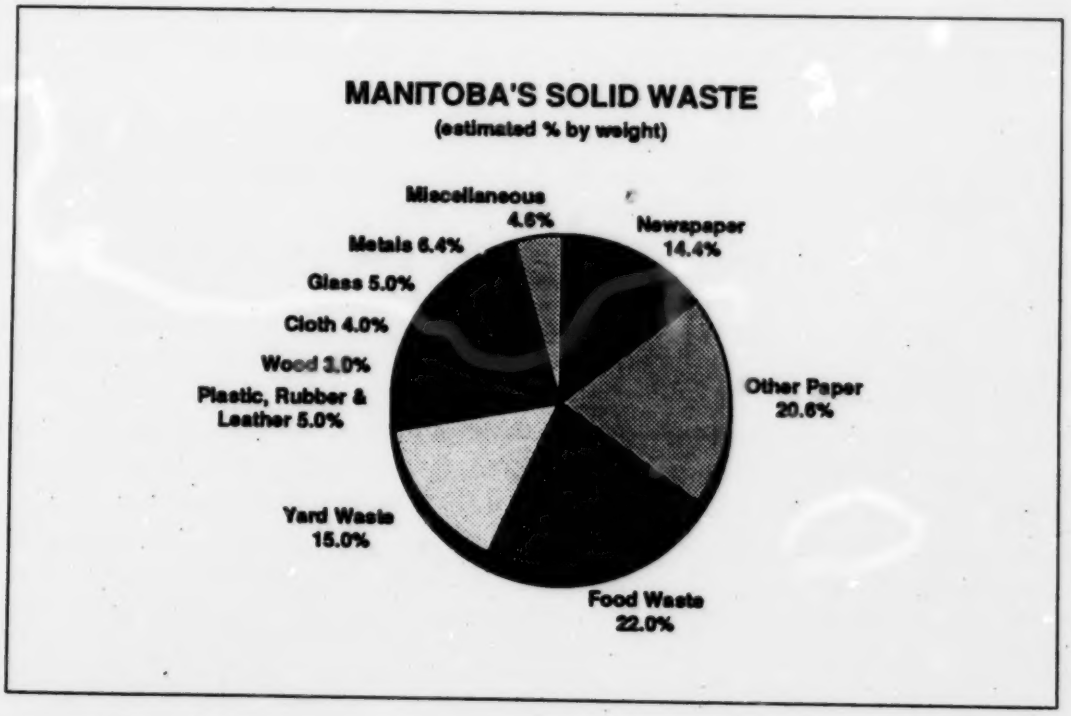
This section discusses strategies and options for achieving waste reduction goals. It is necessary to establish specific waste reduction targets to allow us to plan activities. Targets can be established on one of the following bases:

- For particular product groups or industries, e.g., food and beverage, paper products, and automotive products
- For specific materials, e.g., glass, office paper, plastics, metals, yard waste
- For some combination of materials and product groups.

The Waste Minimization Strategy uses a combination of product group and material based targets to help achieve the waste reduction objectives. Waste flow analysis will be required to assess the suitability of the targets and to measure success in meeting the targets.

The Basis of Targets

By adjusting the results of studies in Ontario, the following chart estimates the make up of Manitoba's waste in 1988.



There are several ways to examine our waste stream. Sales of materials in the province can be compared with the level of recycling. Actual monitoring of the waste stream at the disposal facilities can be used to verify this type of analysis.

Some of these analysis are going on through activities such as the National Packaging Protocol or the activities of garbologists such as Professor Rathje of the University of Arizona.

While it is important for Manitoba to begin to gather accurate information on our waste stream, the committee has identified some immediate priorities. Analysis of waste can be used to verify program effectiveness, appropriateness of waste reduction targets and ensure that resources are applied most effectively. The Committee believes that it is important to involve stakeholders in the design and interpretation of the waste stream studies. Some "distributors" may wish to become directly involved in supporting the studies.

> **RECOMMENDATION 6:** That **Manitoba Environment** undertake province-wide analysis of the nature of wastes entering the landfills to assist in setting the targets. Results of the analysis should be made available to stakeholders and the public.

Targets should be set by the provincial government through consultation and negotiation with interest groups. The basic model for joint protocols of this type include the national and provincial Round Tables or the National Packaging Protocol. In some cases various groups may declare their own targets. Of course, if these methods do not work, or are not acceptable, the government may reserve the right to unilaterally impose targets and/or systems to achieve them.

Numerous industry groups have already established their own targets to demonstrate their environmental citizenship, including:

- The battery manufacturing industry has established The Battery Council International to lobby for legislation requiring wholesalers and retailers to collect spent batteries from customers and recycle them.
- The Canadian Petroleum Products Institute is working with its members to establish a lubricating oil recycling system in Canada.
- Consumers' Glass in Canada has set a target of 50% recycled bottle cullet in their feedstock by 2000. They also have adopted container weight reduction as a goal and are working to surpass the 25% reduction in container weight already achieved.
- The plastics industry through the Society of the Plastics Industry of Canada and other plastics related trade organizations have adopted similar targets. Groups representing other products and materials have also initiated such procedures.
- The metal container industry has supported recycling programs for the containers it produces. The Canadian Tinplate Council is investigating opportunities for "tin" cans andthe aluminum industry is co-sponsoring recycling programs with its customers.

Basic Principles for Establishing Targets

Polluter Pays

A fundamental point of agreement for the Committee is the principle that the polluter should pay for abating pollution and that waste is a form of pollution. Rather than having tax-payers take responsibility for all aspects of waste minimization, it is crucial that the distributors of products in Manitoba take responsibility for the wastes associated with those products, if the "polluter pays" concept is to be realized.

The committee uses the term **"distribution chain"** to describe the activities which provide the products of our economy. This chain stretches from the product designer to the ultimate user and includes both household and business consumers.

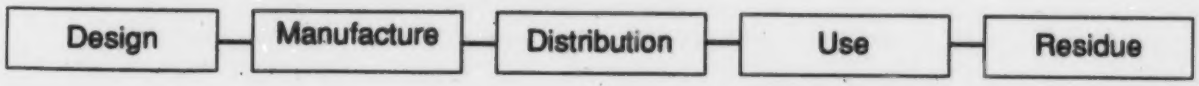
Within the distribution chain, there are many transactions and different companies. One part of this chain will be chosen as the agent responsible for reducing the waste associated with the products in that group. The cost of achieving any reduction will be borne by the members of the chain, including consumers, according to the competitive forces within the chain.

Within the distribution chain, there are many transactions and different companies. One part of this chain, the "distributor" will be chosen as the agent responsible for achieving the targets established for the products sold through the chain. The definition of the distributor is flexible to meet the needs of a range of product groups. The distributor is most likely to be the brand-owner or licensed brand user in the province. In some cases, the distributor could be the retailer or wholesaler of the product, particularly where it is the direct importer of the product.

As an example of the first case, several national brands of automotive products are distributed through a network of retail franchises. In this case, the national brand-owner, not the retail franchisee, would be responsible for meeting the reduction targets. For some of these products, the brand-owner will be the manufacturer. In many cases, the brand-owner will not be the manufacturer. Obviously, automotive products are not the only product sold this way — hardware and building materials, fast food products and appliances also use this distribution chain model.

The major department store chains and supermarkets illustrate the second case. Many of the products sold through these chains are nationally branded products with an identifiable "brand-owner". In this case, the retail chain is not the distributor. Many brands of similar or competing products may have the same brand-owner and a common distributor is therefore responsible for the waste associated with the product. On the other hand, these retail chains each have their own private brands for which they are the brand-owner and therefore the "distributor" identified under the Strategy.

The Distribution Chain



Targets would be established for product or industry groups, with precise specifications written into regulations under the Waste Reduction and Prevention Act (WRAP Act). The implementation of any regulations will have to ensure that a "level playing field" is achieved for similar products. Although one agent will be designated responsible, in actual fact the responsibility will be shared throughout the distribution chain. As noted above, many national industry groups have already established waste reduction programs, in which Manitoba distributors can participate.

Categories for Which Waste Reduction Targets May be Set

- Food and Beverage
- Chemical Products (not covered by existing legislation)
- Pharmaceuticals and Cosmetics
- Paper Products
- Automotive & Equipment Industries
- Appliances
- Other Consumer and Wholesale Containers
- Clothing and Other Semi-Durables
- Construction and Building Materials
- Yard Wastes, Kitchen Wastes & Other Compostables

How Should Targets Be Set?

Targets should be established on the basis of priorities identified by the waste stream analysis. The Committee proposes that a set of analytical criteria be established to analyze the nature of the waste and its impact on the environment. These criteria could include:

- Proportion of material in the waste stream, either by volume or weight
- Toxicity of material in the waste stream, including chemical, bacterial or viral
- Special problems with landfilling - tendency to disrupt protective cover
- Public concern - litter or nuisance values
- Ease of waste reduction via the "4-R's"
- Environmental intensity, i.e., energy use, material content, etc.

Using these criteria it will be possible to evaluate priorities, not just for high volume waste, but also for smaller waste stream components which have special costs to society. These criteria include toxicity associated with residue, their behaviour in a landfill over time, their contribution to litter problems, their general nuisance value or other characteristics. Rubber tires, batteries, lubricating oils, fast food and beverage containers, disposable diapers and advertising flyers are commodities fitting one or more of these categories.

After some experience the target setting process could be enhanced to provide different weighted factors for selected criteria. A higher weight might be desirable for products presently achieving high diversion rates so that valuable materials are not lost, e.g., soft drink containers, beer containers, etc.

To facilitate negotiations between the government and stakeholders, the Committee has agreed to the following terms regarding targets. **High targets** mean a reduction of between 65% and 85% of present levels, **medium targets** are between 45% and 65% and **low targets** mean a reduction of between 25% and 45%.

RECOMMENDATION 7: That the **Minister of Environment** negotiate waste reduction targets with stakeholders in order to accomplish the interim and year 2000 goals. The bases of negotiation should include: the proportion of the product or material in the waste stream, toxicity or other problems created in the landfill, the level of public concern, ease of reduction, and the environmental significance of the product or material.

RECOMMENDATION 8: If the **Minister of Environment** fails in negotiating mutually agreed waste reduction targets, then Manitoba Environment should impose them. Stakeholders should have a right to appeal these imposed targets to an independent arbitration panel. The major test of the appeal should be the reasonableness of the targets.

RECOMMENDATION 9: That the **Minister of Environment** in the annual Waste Reduction And Prevention Strategy Report provide details of the implementation of the Recycling Action Committee's Waste Minimization Strategy.

4. PRINCIPLES UNDERLYING THE WASTE MINIMIZATION STRATEGY

The principles under which the waste minimization strategy has been developed are: the 6-R's of Waste Minimization, Sustainable Development and Shared Responsibility. These principles form the basis of the plan and are as critical to its success as the individual details.

The 6-R's of Waste Minimization

The 6-R's of waste minimization are the familiar Reduce, Reuse, Recycle and Recover activities, with the addition of Residual management activities and a final "R" of Responsibility. Even though these terms are familiar to many, they are frequently misinterpreted.

Reduction at Source

We know from the laws of nature that all material and energy will eventually become waste. Using material or energy accelerates the creation of waste and the careless use of material or energy makes waste very rapidly. Careful use and maintenance makes waste less rapidly. We can control the speed at which waste is made but can not stop its production.

If we want to achieve source reduction of waste we must change the way we use materials so that they are converted to waste more slowly. Some of the elements of a source reduction strategy involve the way we make products (lighter or more durable), some involve the way we use products (more emphasis on maintenance and care), and some involve the products we use (fewer disposable products). Some trade-offs among these options can be undertaken. Lightness can be traded-off against disposability for example.

Source reduction can be defined as a series of activities or actions that lead to a reduction in the quantity and/or toxicity of municipal solid waste. The activities leading to source reduction can originate within all segments of industry, as well as individual consumers and government. Source reduction is separate from solid waste management processes, such as recycling, incineration and landfilling and can be considered as a direct resource conservation measure.

Reuse

One's perspective on reuse of goods to minimize waste varies from generation to generation. Some will recall the returnable milk bottle delivered to the household by the neighbourhood milkman. Soft drinks purchased predominantly in deposit-return bottles will be a memory of a younger generation. Deposit-return beer bottles and some deposit-return soft drink beverage bottles continue to be available in Manitoba.

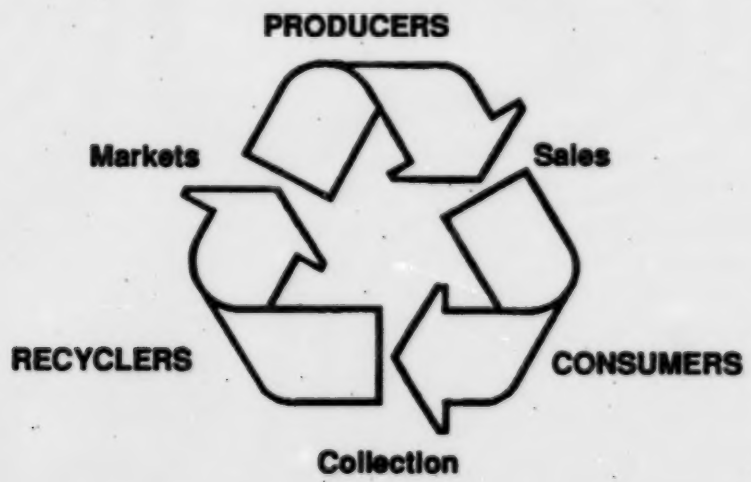
The issue is broader than the deposit-return system for beverage containers however. Commercial containers and pallets also provide extensive opportunities for reuse of materials as do second-hand and swap shops particularly for items such as children's sporting goods, records and books for all ages. Even the popular video rental store is into the act of reuse. Reuse can substitute for source reduction in some cases or serve to complement it. Cloth diaper services and in the home cloth diapers certainly replace disposable diapers and provide for source reduction of waste.

Obviously reuse opportunities must be pursued only to the point of care and common sense in cases where public health and safety are concerned. The risk of shattering glass bottles makes some use of deposit-for-return glass beverage containers unwise. Issues of possible product contamination through reuse of a contaminated container also need careful examination.

Reuse can contribute in a significant way to achieving some waste reduction targets. Those responsible under the Waste Minimization Strategy for meeting those targets will want to use these techniques as appropriate.

Recycling

As described in the Committee's background paper **"Recycling: Now is the Time!"**, recycling is the process by which materials are diverted from the waste stream and reprocessed to produce secondary materials. These materials once again enter the production cycle for consumer and industrial goods. A recycled material can flow back into the same use as in its initial circuit or can be reprocessed into other goods requiring the same or similar materials.



The recycling loop is an "endless" mobius loop divided into sections to represent the three stages of recycling. If the loop is broken at any stage, the flow of material through the loop would stop and waste would result. Thus the importance of "closing the loop" in any recycling program.

At the top of the loop are the **Producers** that sell items to both commercial and household **Consumers. Consumers** separate consumption residues into waste and recyclables. The recyclables are sent to **Recyclers** through a collection process. **Recyclers** sort and process the residues and market them as secondary materials to **Producers**. The secondary materials are used as substitutes for virgin materials.

Recycling slows the process of becoming waste. For instance, yesterday's newspaper contains old news which may not be useful. However, the residual paper is useful if treated carefully and used as a manufacturing input before it becomes waste.

The volume of materials going through this loop is limited by the weakest link in the chain, which in North America has usually been the market. If there is no market for the materials collected, there is no recycling. Quality is the key issue in marketing secondary materials diverted from the waste stream by recycling. The highest quality secondary materials are divertedfrom the waste stream by source separation. By keeping recyclable materials separate from waste materials they will have the least possible contamination and have the greatest ability to substitute for virgin materials in the production cycle.

Setting up a collection program without firm, long-term purchase contracts for the materials to be marketed risks alienating the consumers who take the essential first step of source separation. The need to close the loop for recycling in Manitoba is discussed in a later section, "Markets and System Development".

The initial design of a product has a large influence on its recyclability. Products composed of several materials are more expensive to recycle than products made of a single material. This greater expense could limit the ability to recycle such a product in a small market like Manitoba. Thus the concept of "design for recycling" is very important.

The recyclability of a specialized material or commodity in Manitoba can also be limited by our small market size. A specialized material perhaps can be recycled only back to its original use. If that product is not produced here originally, it must be shipped to a distant market at some expense before recycling is possible.

In these cases, we might have to trade-off recyclability against some other objective — durability for source reduction or reuse, the value of convenience for the cost of landfilling the residual.

An important reason for holding the distribution chain responsible for achieving waste reduction targets is to obtain their assistance in guaranteeing markets for properly source separated materials.

Recovery

Recovery includes both composting, to recover soil nutrients, and energy recovery from waste, to replace fossil fuel use.

Composting can be done either in individual backyard composters or in centralized composting facilities designed to serve an entire neighbourhood, town or region. Individual composting has the potential to reduce municipal collection costs particularly during spring and fall clean-up periods.

Despite our significant hydro-electric resources, Manitoba consumes a large amount of fossil fuels for process and space heating uses. In the Committee's view the recovery of energy from some waste sources as a substitute for fossil fuels is appropriate in some cases. Energy recovery applications might be most suitable for northern locations in which shipment to recycling facilities is not feasible and in which conventional fossil fuels are very expensive. As with all other waste minimization techniques discussed in this plan, the recovery of energy from waste must be done in an environmentally appropriate fashion and will receive lower priority than the preceding "R's" — Reduce, Reuse and Recycle.

Recovery of energy from waste occurs under two basic processes with several variations in terms of the actual combustion technology. The first process is known as a "mass burn" technology in which mixed garbage is burned in a furnace and the energy is recovered as steam to produce process heat or motive power. Refuse trucks dump their load of waste into a pit and the waste is conveyed to the furnace. Secondary materials recovery for recycling can occur prior to incineration but frequently did not in earlier applications of this technology.

The second method is to burn a source-separated material as fuel, rubber tires for instance, or a refuse derived fuel. In the latter case, the waste has been processed to make a fuel which has specified characteristics.

The Committee views source separated fuels for energy recovery as an acceptable part of a waste minimization strategy but not mass burn. Mass burning of mixed waste provides the incinerator operators with substantial control problems. The material content of the waste can vary substantially from truck load to truck load, day to day and season to season. These variations cause fluctuation in the optimum combustion conditions with the result that substantial emissions of environmentally harmful substances can occur. The burning of a consistent waste product of known composition permits the optimization of the combustion conditions in the same way as with the fossil fuels which are replaced.

The Committee adds two caveats on this issue. First, energy recovery is a fourth priority in this Waste Minimization Strategy. Source reduction, reuse and recycling all have priority over energy recovery. The recovery of energy from wastes not suitable for the higher priority techniques is acceptable, subject to appropriate environmental safeguards. Second, the energy recovery techniques utilized must be flexible in their fuelling capability. If a source reduction or recycling technique subsequently becomes viable for the waste fuel, then utilization of the higher priority technique is desirable. We must not see a situation in Manitoba where the volumetric flow of waste to an energy recovery facility must be guarantied for the life of the bonds used to finance the facility. Such a situation makes a mockery of the priority given to source reduction, reuse and recycling.

Great controversy surrounds the use of energy recovery as a waste minimization tool. The Ontario Minister of Environment has ruled against the future use of energy recovery in the waste minimization strategy in that province.

Residuals Management

This "R" deals with the operation of landfills for the purposes of containing the wastes that can not be diverted by one of the earlier "R's". In thinking of Residuals management rather than disposal of wastes, we can see that procedures and even terminology need to change if they are to adapt to new times. Under the Environment Act, the provincial government must regulate waste disposal grounds. Garbologists and garbage archaeologists are making us aware that much of the material deposited in a landfill will not disappear. It will still be there in 25 or 30 years and longer. If it was a nuisance when it was buried, it will probably be a nuisance when it is "discovered" — thus the appropriateness of the term "municipal nuisance grounds".

Residuals include materials which are too contaminated for the other "R's", as well as wastes from recycling and energy recovery activities. For instance, there is a residual waste from recycling automobile hulks called "shredder fluff" which is equivalent to about 20% of the metal recovered. There will also be ash residue from burning waste materials in an energy recovery plant. Managing residues from a recycling or an energy recovery process is very important for the success of the Waste Minimization Strategy.

The residuals in question can be stored in suitable landfills, holding ponds or tanks in an environmentally appropriate fashion. Collection and treatment of leachate, methane or other decomposition products will be necessary in some situations.

Residuals management in this context might result in certain materials being segregated and stored in a landfill, such that they could be recovered in the future if new technology became available. This is an appropriate technique in a province like Manitoba where public concern to conserve resources, rather than a disposal crisis, is the main force behind the Waste Minimization Strategy.

Responsibility For Waste

The Committee believes that responsibility for waste occurs at all stages of the product life-cycle: in design, manufacture, distribution, consumption and use and residual management. At each stage in this cycle, each of us play roles which can contribute to the success or failure of the Waste Minimization Strategy. A key element of the Strategy is that we each accept our shared responsibility for achieving the reduction goal. Consumers, workers, business, educators and governments each have an important role to play. The provincial government has the additional role of holding the rest of us accountable for our responsibilities.

As discussed above, the concept of the distribution chain, stretching from the product designer through the manufacturer to the wholesaler/retailer to the customer and finally to the operator of the residual management facility, helps us to visualize the issue of shared responsibility. What is required is for one key element of the chain in Manitoba to accept responsibility as the focal point for the waste minimization activities of the chain. The distributor or brand-owner seems to be the most effective point at which to

focus the responsibility. The distributor will spread the cost of achieving the waste reduction goal forward to customers or backward to manufacturers according to the competitive pressures operating in the chain.

While the distributor will bear the brunt of the responsibility, we will all have a role to play. The manufacturer can reduce the waste inherent in the product, make it more durable and more recyclable and can utilize recycled inputs where possible. The public can shop more wisely, choose more durable products and take advantage of waste reduction and recycling opportunities that are available in the community. They also can initiate community based programs of waste reduction and recycling action and education. Government can minimize their own waste, support community initiatives and hold the rest of us responsible for our waste generation actions. Government also must ensure that a "level playing field" is maintained and that costs of meeting the waste minimization objective and targets are borne equitably by all.

Residuals management is the final point of responsibility of the distribution chain for the wastes generated in the life-cycle of its products. The distribution chain will exercise this responsibility via payment of user fees and surcharges for landfilling. Increased effectiveness of source reduction, reuse, recycling and recovery will decrease the volume of residuals to be managed and reduce the payment imposed on the distribution channels.

More rigourous regulation of waste disposal grounds, in addition to higher tipping fees, could create problems for some parts of the recycling industry. Automobile recyclers and the disposal of shredder fluff illustrate this problem. The responsibility for overcoming this and similar problems lies with the brand owner. If protection of the environment and workers imposes additional costs on the recyclers, the brand owner should compensate the recycler for these extra costs. This would give the brand owner the incentive to design the product for recycling and to protect the environment.

The industry has suggested that recyclers receive exemption from higher tipping fees. Such an exemption does not meet the principles of the Committee's Strategy. The principle of shared responsibility for waste minimization, arises from the need for stewardship in a sustainable economic development strategy.

RECOMMENDATION 10: That the "4-R's" in the RAC mandate be expanded to the "6-R's", by including Residue Management and Shared Responsibility, for the purpose of implementing the waste minimization strategy. Wherever practical, the "4-R's" should be implemented in order of Reduction, Reuse, Recycle and Recover.

RECOMMENDATION 11: That the Minister of Environment consult urgently on ways and means of overcoming the threat to the viability of industrial recycling operations faced with the need to dispose of their residual wastes.

Sustainable Development

A waste minimization strategy for the 1990's should be based on the principle of sustainable development. The government of Manitoba has committed itself to developing and implementing a sustainable development strategy. A core document entitled "Towards a Sustainable Development Strategy for Manitobans" will shortly be released by The Manitoba Round Table on Environment and Economy. The principles of sustainable development as adopted by the Manitoba Round Table will set the framework for a sustainable development strategy in the province . (see below)

Both the sustainable development strategy being prepared by the Manitoba Round Table and the Waste Minimization Plan prepared by the Action Committee take as their basis the statement at the core of the Report of the World Commission on Environment and Development:

> "Humanity has the ability to make development sustainable — to ensure it meets the needs of the present without compromising the ability of future generations to meet their own needs."

This challenge issued by the World Commission is being extended and refined in the work on "The 2nd World Conservation Strategy Project". The Project defines sustainable development as a complex of interacting principles each of which has relevance for development activities. The principles are:

- **Ecological Sustainability** - requires that development be compatible with the maintenance of ecological processes, biological diversity and biological resources.
- **Social Sustainability** - requires that development increase people's control over their lives, and maintain and strengthen community identity.
- **Cultural Sustainability** - requires that development be compatible with the culture and values of the people affected by it.
- **Economic Sustainability** - requires that the development be economically efficient and that it be equitable within and between generations.

(The 2nd World Conservation Strategy, Draft Report)

The Waste Minimization Strategy takes its cue from the concept of economic sustainability although the other three principles must be respected with equal care.

The elements of sustainable economic development as perceived by the Action Committee are: materials and energy efficiency, wise use of natural resources, conservation and stewardship. Each of these elements is important to the achievement of sustainable economic development and to the achievement of the goal of the Waste Minimization Strategy.

Materials and energy efficiency are increased by implementing the first four "R's" of waste minimization — source reduction, reuse, recycling and energy recovery. These activities, of course, are the core of the Strategy.

Principles of Sustainable Development adopted by *Manitoba's Round Table on Environment and Economy*

Our vision of environmentally sound and sustainable economic growth for Manitoba will be governed by the following principles:

1. **Integration of Environmental and Economic Decisions**

   This principle requires that we ensure economic decisions adequately reflect environmental impacts, and environmental initiatives adequately take into account economic consequences.

2. **Stewardship**

   This principle requires that we manage the environment and economy for the benefit of present and future generations.

   Stewardship requires the recognition that we are the caretakers of the environment and the economy for the benefits of present and future generations of Manitobans. A balance must be struck between today's decisions and tomorrow's impacts.

3. **Shared Responsibility**

   This principle requires all Manitobans to acknowledge responsibility for sustaining the environment and economy, with each being accountable for decisions and actions, in a spirit of partnership and open cooperation.

4. **Prevention**

   This principle requires that we anticipate and prevent significant adverse environmental and economic impacts of policy, programs and decisions. Where it is impossible to prevent all environmental or economic damage from occurring, mitigative measures must be taken.

5. **Conservation**

   This principle requires that we maintain essential ecological processes, biological diversity and life-support systems of our environment and natural resources; harvest renewable resources on a sustainable yield basis; make wise and efficient use of our renewable and non-renewable resources.

6. **Recycling**

   This principle requires that we endeavour to reduce, reuse and recover waste by-products of our society.

7. **Enhancement**

   This principle requires that we enhance the long term productive capability, quality and capacity of our natural ecosystems.

8. **Rehabilitation and Reclamation**

   This principle requires that we endeavour to restore damaged or degraded environments to beneficial uses. Rehabilitation and reclamation requires ameliorating damage caused in the past. Future policies, programs and developments should take into consideration the need for rehabilitation and reclamation.

9. **Scientific and Technological Innovation**

   This principle requires that we support research, development, testing and implementation of technologies essential to further environmental quality and economic growth.

10. **Global Responsibility**

    This principle requires that we think globally when we act locally. Global responsibility requires that we recognize there are no boundaries to our environment, and that there is ecological interdependence among provinces and nations. There is a need to work cooperatively within Canada, and internationally to, accelerate merging environment and economics in decisions and to develop comprehensive and equitable solutions to problems.

In wise use of natural resources we try to achieve the greatest value from the resources in the face of scarcity — what the economists would label economic efficiency. Wise use in this context could involve shifting consumption towards those who are presently consuming the least since their level of unmet needs will be the most basic.

In conservation and stewardship we accept responsibility for the interests of others and defer present use or consumption of resources as necessary to recognize the need underlying those interests. The "others" can be future generations of humans, other members of the present generation or other species sharing the planet. An element of stewardship is that we recognize and pay the cost of human induced environmental change as the price of getting the right to make that change.

Policies of "life-cycle costing" or "full-costing" lead us to recognize these costs. We estimate costs for all elements of the product life-cycle from extraction of materials, to processing, to manufacturing and distribution, to management of wastes and residuals. Full costs include all of the costs of an activity including environmental costs which at this time are not part of normal market price. Design of products for waste minimization and recycling frequently can reduce the full life-cycle costs of a product.

Implementation of the Committee's Waste Minimization Strategy will make a significant contribution to integrating environmental and economic decision-making. Holding the distributor responsible for achieving waste reduction targets will have beneficial impacts both upstream and downstream in the distribution chain. Analysis of waste plans required under the strategy will be done under criteria that reflect the principles of sustainable development discussed above.

RECOMMENDATION 12: That the Minister of Environment recommend to the Manitoba Round Table that "Waste Minimization and Recycling" be the topic of a substrategy component of its Sustainable Development Strategy, rather than Recycling and Waste Management.

RECOMMENDATION 13: That the Minister of Environment recommend that the Manitoba Round Table adopt this Action Plan as a substrategy report.

5. A STRATEGY FOR MANITOBA

The Committee's basic strategy is that the most effective way to implement the principle of polluter pays for waste reduction is to hold the distribution chain responsible for the waste generated by its products. Competitive pressures within the chain will ensure that the most cost effective waste reduction strategy is pursued. It lays out a strategy to include in our economic decisions the public and environmental costs associated with waste. The costs associated with waste reduction programs will ultimately be included in the purchase price, rather than being funded out of taxes. The Committee sees this as a part of a sustainable development approach to our lifestyles.

Several industries have noted that they are only a small part of the problem. It is not the Committee's intention to single them out, rather, the Strategy is designed to be applied to the entire waste stream. This makes the Strategy much more than a beverage container strategy or a recycling strategy. Industrial and commercial wastes are a larger part of the waste stream than household wastes. However, consumer goods and packaging must receive significant emphasis because of the high level of public concern.

The Strategy

The Strategy calls for Manitoba Environment to prepare a list of priority products for waste minimization. The list would be expanded over the decade until, ultimately, all components of the waste stream will be included. The criteria used for the initial list of priority products should be similar to the criteria for establishing waste reduction targets as suggested in Recommendation 7. This list should be released by Manitoba Environment not later than January 1, 1991.

Distributors of products in Manitoba with an annual provincial sales volume above specified levels will be required to develop Action Plans to minimize the wastes from those products. The exact threshold levels would be negotiated with stakeholders while setting waste reduction targets. The Action Plans would describe a program to attain the waste reduction targets. Action Plans would be required to be filed no more than 18 months after the publication of the priorities list, although in some cases much less time will be required because of existing plans, programs, or opportunities.

Governments must develop plans to reduce the waste associated with the products they distribute, as well as for yard and food wastes. New products would be compared with the priority list at the time of introduction and may be required to meet the targets for their product category.

Deadlines

Date	Activity
June 1990	Projected start date
January 1991	Manitoba Environment identifies priorities
July 1992	Priority Action Plans submitted by distributors
January 1995	Predisposal levies imposed on non-performers

The Committee has identified some products and materials to recommend to the Minister as initial priority items. These items have been selected as priorities based on our deliberations and public consultations. Recommendations 24 through 29 contain the suggested steps for these items.

Action Plans

Members of the distribution chain are able to choose the most effective method of achieving the waste reduction target for their products. They might develop their own programs or buy-into established programs. The mix of activities may vary from region to region of the province if that lowers the total cost of achieving a target. For example, in remote or northern regions it may make economic sense to compost paper rather than to recycle it.

Firms with more than one product in a given product group may create Action Plans based on the entire group of products. For instance, an appliance distributor's Plan could include the entire range of products sold — stoves, washers and dryers, dishwashers etc. Special procedures might be included for refrigerators, freezers and air conditioners to recapture the ozone damaging C.F.C. based refrigerants.

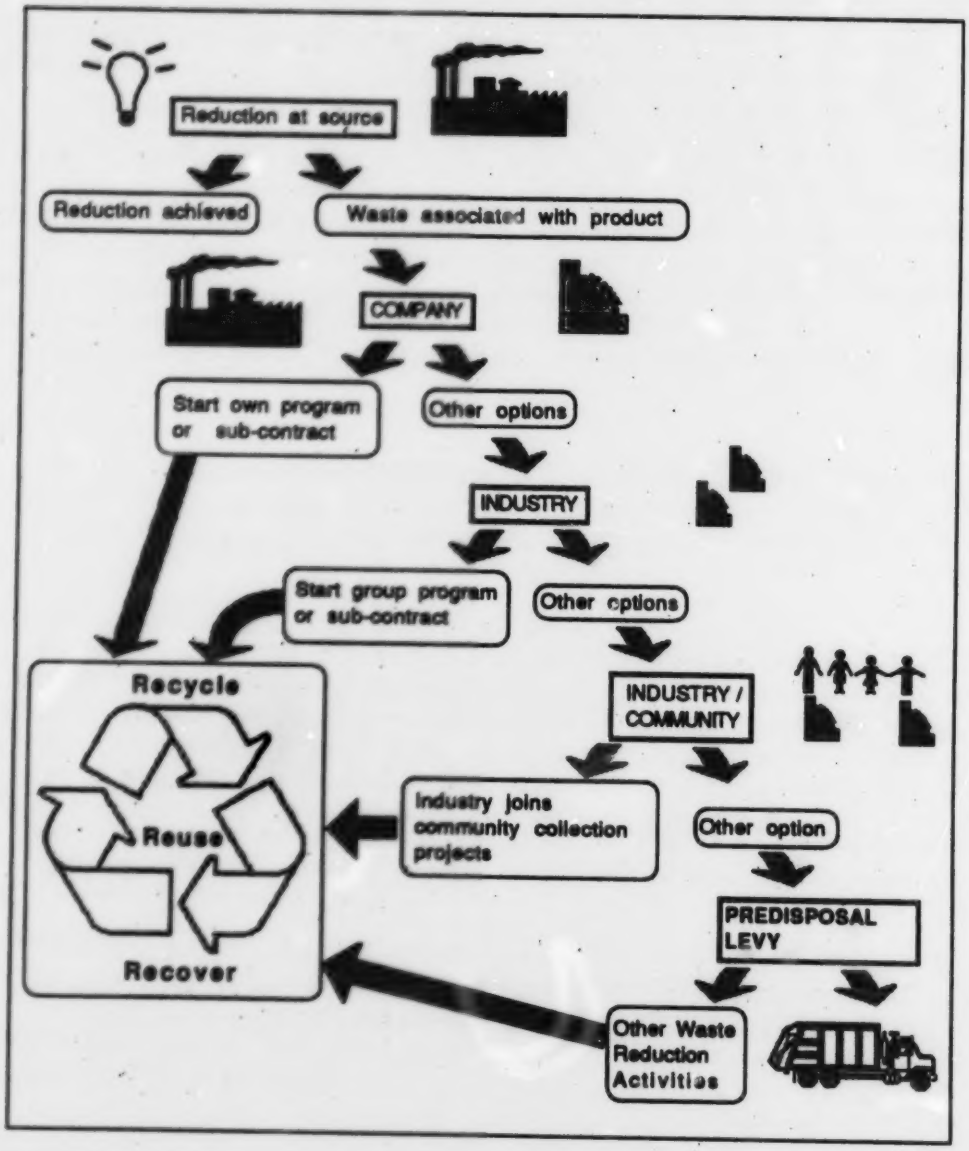
The content of the Action Plan is intended to be flexible and could possibly combine a mix of the "4-R's", national protocol considerations, reduction activities by suppliers, along with recycling elements with local contractors. The Plans should include performance milestones, evaluation criteria, compliance incentives, and a description of how to implement the plan in all regions of the province. The Plans could be updated periodically at the distributors' initiative. Annual reports to Manitoba Environment would detail progress towards achieving the reduction goals.

Industry Approaches to Minimizing Waste

Auto Batteries -	The Battery Council International has developed "model legislation calling for wholesalers and retailers to accept spent batteries for customers buying a new one.
Used Motor Oil -	The Canadian Petroleum Products Institute has developed an industry action plan to recover used motor oil throughout Canada.
C.F.C.'s -	General Motors will be installing C.F.C. recovery and recycling facilities at its dealerships
Shopping Bags -	Both Safeway and Superstore have implemented in-store plastic shopping bag recycling programs and are encouraging shoppers to reuse the plastic bags. They are also selling "permanent" shopping bags.
Newspaper -	FSC Paper Co. of Alsip, Illinois, will buy all collected newsprint from nearby communities as long as local publishers agree to use certain amounts of the mill's 100% recycled newsprint.
Glass Containers -	A retailer, the Manitoba Liquor Control Commission, funds a recycling program for containers sold in its outlets, some which it imports directly and others which are supplied by local manufacturers.
Pesticide - Containers	National distributors of herbicides and pesticides financially support the operations of the Association for a Clean Rural Environment through a self imposed levy on product containers.

Manitoba's Action Plans should complement national and international protocols which are being developed. Canada's National Packaging Protocol calls for industry to develop a plan to reduce packaging waste in Canada by 50% by the year 2000 (1988 base year). In the United States, several industrial and government groups are also developing strategies. The Council of North-east Governors and the packaging industry have agreed on a set of guide-lines aimed at source reduction. The U.S. Midwest states are holding similar discussions. One of the outcomes of government concerns has been the formation of the Council on Solid Waste Solutions as a subsidiary of the Society of the Plastics Industry.

ACTION PLAN PROGRAM OPTIONS



Incentives

To provide an incentive for early compliance with the Strategy, the Committee suggests that the province develop a distinctive way to recognize products through public education, perhaps an honour roll or a distinctive logo. Use of such recognition would depend upon achieving milestones and would be cancelled if the Action Plan didn't work. Public recognition would provide a competitive advantage for products with good programs and its use should be reviewed on a regular basis.

After January 1, 1995 products and firms not achieving interim targets or milestones would be assessed a predisposal levy. The levy would be scaled according to the level of non-performance and to the importance of the material in the waste stream. The first levy assessment would be as of April 1, 1995 and based on the Statement of Progress filed for the 1994 calendar year. Firms would continue to pay the predisposal levy until they achieve their targets and milestones.

Firms not filing a Waste Minimization Action Plan with a reasonable expectation of achieving the targets and milestones would be required to post a performance bond with respect to the 1995 interim targets.

Distributors would file Waste Minimization Action Plans for each group of products with a sales volume over the threshold. For products distributed in the province as of June 30, 1990 Manitoba Environment would be responsible for identifying the priorities by January 1, 1991. Distributors would be responsible for filing action plans within 18 months of the publication of the priorities list. New products to be introduced after the cut-off date, would be identified as priority or non-priority products at the time of introduction. These new products would be required to meet the targets set for their product category.

RECOMMENDATION 14: That the **Manitoba Government** publicly report the adoption of this Waste Minimization Strategy in June 1990 and report on the products to be given priority waste reduction targets by January 1, 1991.

RECOMMENDATION 15: That the **Minister of Environment** set the sales threshold level requiring a distributor's participation in a waste reduction plan. The level could vary and would be set as part of the negotiation of waste reduction targets.

RECOMMENDATION 16: That **Manitoba Environment** develop criteria for evaluating Waste Minimization Action Plans according to the principles of this Strategy.

RECOMMENDATION 17: That the **Manitoba Government** and its agencies develop Waste Minimization Action plans for their activities.

RECOMMENDATION 18: That the **Manitoba Government** require all municipalities and school boards in the province to develop Waste Minimization Action Plans.

RECOMMENDATION 19: That the **Manitoba Government** enter into negotiations with the Government of Canada to develop Plans for its wastes where appropriate.

RECOMMENDATION 20: That the **Manitoba Government** establish an incentive program to encourage early achievement of targets and milestones. The incentive would be permission to use a recognition format adopted and promoted by the government.

RECOMMENDATION 21: That the **Manitoba Government** require distributors who have not filed Waste Minimization Action Plans by the specified date to post an appropriate performance bond. The bond would be forfeited if the distributor failed to meet the interim targets and milestones.

RECOMMENDATION 22: That the **Manitoba Government** establish appropriate predisposal levies for all products distributed in Manitoba for which waste reduction targets or milestones are not met. The levy would be scaled according to the level of non-performance and importance of the goods in the waste stream. The distributor of the products is liable for payment of the levy.

RECOMMENDATION 23: That the **Manitoba Government** ensure that the proceeds of any such levies or forfeited bonds be used for waste minimization purposes.

Priority Products and Materials

The Committee has identified several products and materials as initial priorities for Waste Minimization Plans, based on its research and consultation. Not all of those items listed below have the same priority and a variety of actions are recommended as a result. It is possible that the Government will have different priorities than those of the Committee. The specifics of the final priority list is their responsibility.

Tires, Batteries and Lubricating Oils

Using the criteria suggested in Recommendation 7, several products from the automobile industry require early attention. Tires, batteries and lubricating oils all rate medium or high because of toxicity, landfill problems, public concern, ease of reduction and environmental intensity. The Committee believes that high targets with early milestones should be set for these products.

Approximately 80% of the lead acid batteries from our automobiles are currently being recycled in Manitoba, although this rate has been dropping. The battery recycling industry has had difficulties developing adequate protection of employees and the environment from lead and in treating acids from the batteries. The Battery Council International has proposed an approach to reduce batteries going to waste.

Of the lubricating oil sold in Manitoba, only about 20% is currently being collected. The Canadian Petroleum Products Institute, which represents most of the industry, has developed a waste reduction plan for all of Canada. The primary difference between the CPPI proposal and this Strategy is that the industry suggests that its responsibility be limited to funding one-third of the capital costs of the collection system with the government paying for the rest. The Committee recommends that the industry be held responsible for achieving the waste reduction targets.

Rubber tires are another example of a product which requires early intervention in order to reduce waste. The recent tire fire in Ontario, and other similar catastrophes, occurred because of a failure to close the recycling loop. Many feasible uses for old tires are available and the main barrier appears to be economics. The Prairie Provinces are considering a recycling strategy for used tires, developed by a joint industry/government task force.

> **RECOMMENDATION 24:** That prior to June 1, 1991 the **Minister of Environment** negotiate waste reduction targets for automotive tires, used motor oils and storage batteries to achieve a high level of waste reduction before June 1, 1993.

Disposable Diapers

Disposable diapers are a topic of public concern in Manitoba, as they are in many places. While their use provides convenience for parents and in geriatric settings, low waste alternatives are readily available. The significance of diapers in the waste stream has not been documented in Manitoba and the landfill regulations are mute on the issue. Analysis of the waste issues surrounding this product is urgently required. The Committee recommends that a special analysis is required before interim waste reduction targets can be set.

> **RECOMMENDATION 25:** That **Manitoba Environment**, in cooperation with distributors and other stakeholders, undertake an immediate analysis of the impact of disposable diapers. All stakeholders should be represented in the design and execution of the study and in the negotiation of any targets. Interim targets or milestones should be achieved by June 1, 1993.

Newspapers

Newspapers are a major component of the waste stream and one which received substantial discussion at the Committee's Town Hall meetings. Potential markets for recycled fibre are also relatively close at hand. For these reasons the Committee believes that newspapers should be given a high priority.

Until now, newsprint in Manitoba has primarily been recycled in limited quantities as cellulose insulation or for packing material. The small size of these markets has resulted in less stability than is desirable to support grassroots involvement. The Committee would like to see a program similar to Manitoba Soft Drink Recycling, which supports a province-wide market, established by the newspaper publishing industry and its suppliers. The recently announced curb-side collection program for 16,000 homes in Winnipeg is a good initial start. Interim targets and milestones are to be set by June 1, 1993.

RECOMMENDATION 26: That the **Minister of Environment** make negotiation of high waste reduction targets for the newspaper publishing industry a priority. Interim targets should be achieved by June 1, 1993.

Corrugated and Commercial Waste Paper

Corrugated and commercial waste papers are a large component of the commercial waste stream. Many waste reduction opportunities already exist here. Because of the existing opportunities to close the recycling loop, these products are an area where the users will have a significant role in achieving the targets.

A wide range of policies for these materials have been pursued in other jurisdictions, including separate collection routes by municipal or private sector collectors, surcharges at landfills and even complete bans on the material entering the landfill.

As corrugated containers are frequently a component of the waste associated with the distribution of many products, it is expected that many other waste reduction plans will include consideration of this material. In Manitoba the question is not so much what to do, but what is the best way to do it and who should do it.

RECOMMENDATION 27: That the **Minister of Environment** convene an advisory committee to develop and implement a waste reduction plan for corrugated cardboard and commercial waste papers. The advisory committee should develop a strategy to achieve a high reduction in waste, with interim targets to be achieved by June 1, 1993.

Yard Waste

Yard waste is another high volume component of the waste stream. Governments, property owners and landscape gardening contractors have the major responsibility for this material. Mulching lawn-mowers and backyard composting are ready opportunities to reduce waste. Larger central compost facilities can provide valuable soil conditioners.

Organized initiatives in this area are likely to come from municipal governments. Several initiatives are already underway, including distributing back yard composters and a proposed central composting facility. Governments should consider using compost in their landscaping projects, as the material becomes available.

Composting can work well, as long as it is done properly. However, there is an important and immediate need for greater effort on education and investigation of composting. The environmental and public health impacts must be controlled and techniques to deal with our climate developed.

RECOMMENDATION 28: That the **Minister of Environment** establish a committee to prepare a viable strategy on composting by January 1991. The committee should review existing operations and include representatives of the provincial and municipal governments, universities and community organizations. Interim targets should be achieved by June 1, 1993.

Beverage Containers

Beverage containers have attracted major attention in every jurisdiction which has addressed waste minimization issues. The number of variations of policies towards these products is overwhelming.

Some components of the industry have or are switching from reusable containers to recyclable ones — particularly the dairy industry, the soft drink industry and the beer industry. Other parts of the industry, for example juices and spirits, have never used refillable containers. The Committee frequently heard consumers lament the disappearance of returnable bottles where they were once available.

The soft drink and beer industries have already accepted responsibility for the wastes from their products to some extent. The soft drink industry has established a buy-back program for its non-returnable containers. The program has been very effective in getting community groups and schools to operate as collection agencies. This has not only made the program widely accessible but also provides for community and school based education opportunities. The beer industry has long relied upon hotel beer vendors to provide deposit refunds on reusable bottles and recyclable cans.

It is important that the successes of these programs be maintained, enhanced, and expanded. The 98% return rate on beer bottles sets a standard for waste reduction for other beverages and containers. If this reduction rate can be achieved for one product and one container, competing products and containers should be able to achieve similar results.

A number of variations of the existing programs could usefully be undertaken. First, beverage distributors which do not have a Waste Minimization Plan could establish their own or join one of the existing programs. The contract between the Manitoba Liquor Control Commission and the soft drink recyclers is a model for joining an existing program. Secondly the existing programs could serve as agents for each others containers or potentially be amalgamated. Third the range of containers accepted by the soft drink buy-back could be expanded to include deposit refund bottles. Fourth, the incentive to achieve the return of deposit containers should be enhanced using unredeemed deposits for waste minimization and anti-litter programs.

RECOMMENDATION 29: That the Minister of Environment convene early discussions with all components of the "beverage industry" and other stakeholders, to develop an enhanced program for the industry. Existing accomplishments should be sustained and new targets and achievements identified. Discussions should be concluded and implementation begun not later than June 1, 1991.

6. EDUCATION AND INFORMATION

Need for Information

A constant theme in the Committee's public consultations was the need for more and better information in the community to raise awareness of the problems as well as identify ways to promote waste minimization and recycling. There is a major public demand to "get the message out" on issues such as:

- Why waste minimization and recycling is needed
- What can be done to improve the situation in general
- What can be done with specific materials to keep them out of the waste stream
- Where can materials be recycled
- How to implement a waste minimization and recycling program in a business, school, or industry.

The audiences for this information vary. Needs were identified for school age children, for consumers and the public at large, industry, and for post-secondary professional and technical education programs.

There is no doubt that the restricted availability of opportunities in the province for recycling household discards has limited the active delivery of information to the public. However, as opportunities are developed, there will be a strategic need for intensifying education and public information efforts to ensure the success of waste minimization and recycling programs.

The resources that have been available to respond to public requests for information have been quite limited in the past.

Manitoba Environment's Recycling Coordinator has spent a significant proportion of his time responding to public requests for information. As activities dealing with recycling have increased dramatically, the demand for service has exceeded the resource capacity for carrying out any active program in this area.

Activities carried out by the **The Recycling Council of Manitoba** have included the maintenance of a speakers bureau, which has been increasingly busy in the past year. The Council has also served as a place where materials on the general subject have been available.

The **Westman Recycling Council** has carried out various public education functions in communities in the Western part of the province.

The **Manitoba Waste Exchange** has continued to be a broker of information on the availability and need for secondary materials. Their mandate is to deal with industrial materials. There has been no comparable "hot line" to deal with the general provision of information. This function has been addressed by Manitoba Waste Exchange, Manitoba Environment and the RCM on an *ad hoc* basis.

Manitoba Soft Drink Recycling, as part of its program to promote the recycling of beverage containers has carried out an exemplary program of public presentations for the schools and community organizations.

The **Fort Whyte Centre for Environmental Education** has undertaken various recycling education programs.

The **Consumers' Association of Canada (Manitoba Chapter)** has run an active campaign to educate consumers about responsible shopping practices. Waste reduction and the elimination of excess packaging have been major topics of the Consumers' Association of Canada program.

The **Resource Recovery Institute** has started a recycling hot line as a part of Winnipeg's pilot curbside collection project. While intended for the use of the residents in the pilot area, many other persons have been using this service.

In summary the number of requests for information has been large and growing rapidly. The groups attempting to respond have limited resources and materials to do this work. Major additional funds are needed.

Need for a Community Outreach Approach

It was some time ago that the cartoon character Pogo took note of our environmental crisis and observed that "We have met the enemy and he is us!" All of us as consumers have a responsibility for minimizing our contribution to the problems of solid waste generation and for building individual and collective solutions.

Recycling has a strong public appeal. It is something to which we all feel we can contribute. It also provides, on a personal level, a view of how broader environmental issues can be addressed. In this sense it is important to link our understanding of this issue with our understanding of "sustainable development".

Above all, there is a need to provide the public at large with accurate information on the nature of our solid waste problem so that actions can be focused where the need is greatest. Among the issues about which more information is required are:

- The composition of the waste stream
- An appreciation of the role that packaging plays, for example, in maintaining public hygiene, so that the concept of "excess packaging" can be more clearly distinguished
- The environmental and social costs of disposables
- The alternatives associated with durable and semi-durable goods
- The role of the individual in the creation of environmental problems and their responsibility in finding the solution
- The special problems of litter.

As we move toward solutions, it is important that a broad understanding of alternatives is understood. The most widely appealing and understood "solution" of the day may not correspond to the most cost-effective long-term approach to what is a complex set of problems. It is essential that educational materials correspond to the specific development of programs in Manitoba.

Responsibility for conducting a public discussion of issues lies not only with Government, but with all stakeholders, including the media who are the main providers of information to the general public. To ensure that a relatively consistent message is communicated, coordination is essential. Manitoba Environment should work with all those organizations involved in public (adult) and consumer education to ensure that materials and programs are cost-effectively and cooperatively developed and delivered.

At the same time, consumers require the clearest explanation of how they can take advantage of waste minimization and recycling opportunities including "what" materials are being accepted by "whom", subject to "what quality conditions". Experience from recycling collection systems for household discards consistently demonstrates the need for promotion and education. Encouragement to recyclable and to maintain effective source separation are the major roles of these programs. The information must be readily accessible.

RECOMMENDATION 30: That **Manitoba Environment**, in co-operation with other stakeholders, ensure that a province-wide community outreach program be actively pursued and coordinated including: materials and speakers on waste minimization and recycling, a quarterly newsletter to promote waste minimization and recycling, a toll-free "hot line" with consumer information on recycling opportunities, an anti-litter campaign, and establishment of a resource centre for ready access to information and material from Manitoba and elsewhere.

Need for a School-based Approach

As education must play a critical role in the strategy to reduce the volume of waste that is generated in Manitoba, the Committee felt it to be important to review the present programs and opportunities that exist in the school system.

A workshop on "Environmental Education - Needs and Opportunities" was held in January 1990 to address these issues, involving the Department of Education, the Manitoba Association of School Trustees, Manitoba Teachers Society and other organizations involved in public education.

It was generally agreed that while students demonstrate an active interest in environmental issues in general, and recycling in particular, there are limited materials or activities incorporated into present curricula. Numerous initiatives have been pursued in different schools, built on the enthusiasm of individual principals, teachers and classes. However, there has been minimal coordination and centralization of materials and experiences.

It was noted that the value of addressing environmental issues in the schools extends well beyond a broadening of students' intellectual horizons. Students themselves are important catalysts in questioning "how things are done", by themselves and their families. It was further felt that the principles involved in promoting waste minimization and recycling were best introduced through an integration into existing school curriculum, and that the program ensure a progression, and not a repetition, as students advance from year to year. Development of a "sustainable development" curriculum in the school system, currently under way, will reinforce this effort.

> **RECOMMENDATION 31:** That **Manitoba Environment**, in consultation with the **Department of Education and Training** and interested organizations, develop materials and activities to be integrated into existing K-12 curricula.

In recognition that one learns best by "doing" and that students themselves are very aware of inconsistencies, it was felt to be important that any modification of curriculum be complemented by the active pursuit of recycling opportunities through the schools themselves. This could be done through purchasing policies to obtain recycled materials, reviewing policies in effect in school cafeterias and through programs to source separate school wastes for recycling. It was acknowledged that in many cases this could require considerable changes in administrative practices and expense (e.g. acquisition of storage containers for source separation recycling projects).

> **RECOMMENDATION 32:** That the **Manitoba Government** negotiate with **School Boards** to promote the adoption and implementation of waste minimization and recycling plans to demonstrate issues and options included in the school curricula.

Need for Developing Technical Skills

Accomplishing a 50% reduction in waste will require new technical skills and an integration of new ideas in decision-making. Some specific applications of this approach include:

- In-service sessions for municipal and industrial employees
- Community college programs for certificates in waste reduction and prevention and recycling technicians
- University level courses for students in "technical" (e.g., engineering, industrial design, and environmental studies) disciplines to ensure adequate skillbase for developing solutions and new technologies
- University level courses for students in "non-technical" (e.g., education, urban studies, and business administration) disciplines to ensure the integration of an appreciation of waste minimization.

> **RECOMMENDATION 33:** That the **Minister of Environment** consult with the **Minister of Education and Training** to ensure that waste minimization is thoroughly integrated in post-secondary education and training programs.

7. MARKET AND SYSTEM DEVELOPMENT

Achieving waste minimization targets will require extensive changes in how we go about our lives — as consumers, as producers, as distributors, as workers, and even as investors. Accomplishing the "4-R's" will require considerable innovation and new activity. Reduction at source will depend on strengthening research and development. Reuse will depend on better education. Recycling will depend on the development of markets. Recovery will depend on technology and market development.

In the long-term Strategy being recommended it is clear that primary responsibility for reducing waste should lie in the "distribution chain". This provides the greatest incentive and flexibility for ensuring the existence of markets. Even with this approach, there are opportunities for supporting waste minimization efforts. Market and system development will allow us to more efficiently "close the loop" and meet our targets.

The Committee's Strategy will take some time to implement — three to five years in some cases. Much of this time will be spent learning about the best system to achieve our objectives and reduction targets in Manitoba. We will need to "try-out" methods that have been used elsewhere and adapt them to our own needs. We will make mistakes, but if we wait for the "perfect system" to be developed, the Waste Minimization Strategy will never be in place. Industry is quite familiar with taking risks in order to determine the best way to accomplish an objective. Governments and community groups are less comfortable operating in this risk-taking fashion.

We must **BUILD ON WHAT WE HAVE FOR WHAT WE NEED.** In the short-run, there is a critical need for information on wise purchasing behaviour, as well as on waste minimization and recycling opportunities.

Purchasing decisions are made daily by businesses, governments and households and they want to know what products to buy and where to find them. The provincial government procurement policy discussed later in this section is one example of such behaviour.

RECOMMENDATION 34: That the Manitoba Government encourage Manitoba based manufacturers to include recycled materials in their products where possible.

RECOMMENDATION 35: That the Manitoba Government encourage Manitoba distributors to provide products containing recycled materials.

Closing The Loop

The "market-demand" for recycling opportunities for businesses, governments and households is growing every day. Many people are simply not willing to wait any longer. Recycling has become the "greenest" of the "green" marketing tools.

Closing the recycling loop requires markets at the retail and wholesale levels for the materials to be recycled. Retail markets can take the form of a buy-back location, a drop-off location or a curbside collection program. Because source separation of recyclables from the balance of the waste is the most vital grassroots activity in recycling, access to retail markets is a key element to meeting the market demand for recycling.

The beverage industry, through the members of Manitoba Soft Drink Recycling Inc. and Associated Beer Distributors Inc., has been the primary force in developing retail markets for beverage containers. Many schools and community groups have used this retail market to raise funds for their purposes. The wholesale marketing of containers is the responsibility of industry.

The newspaper industry and its suppliers have recently also developed a "grassroots curbside collection retail market" for newspapers in Winnipeg. The program is presently not designed to provide opportunities for fund-raising for community groups. Limited opportunities to raise funds do exist in the cellulose fibre insulation markets for newsprint.

Even with these two examples, additional waste minimization and recycling infrastructure is required throughout the province. Projects demonstrating other waste minimization actions also are needed throughout the province. Some of these will be funded directly by industry as with the buy-back of soft drink containers and with the proposed curbside collection of newspapers in Winnipeg. Some, however, will require funding from industry, government and grassroots groups themselves, as has been demonstrated by the present system of Recycling Days that has developed in many parts of the province. "Contributions-in-kind," the sweat equity of citizens and the donation of equipment and facilities by industry and government, are important parts of this funding.

It is likely that the distributor will want to actively involve customers, individually and in groups, in the system development process. Community and other grassroots groups in Manitoba are already undertaking waste reduction and recycling activities as they always have, although they have indicated that further coordination and support is required.

Coordination

Several stakeholders have suggested that a coordinating agency will be necessary both in the short-run and in the long-run. In the short-run, it is urgent that the present market demand for recycling activities be focused towards the long-run goals and targets. New initiatives are being announced daily — generally with an expectation of funding from one or more levels of government. At present there is no clearing-house of information or facilities that assist the development and implementation of these initiatives. Manitoba's Waste Minimization Strategy must be sustainable both in the short-run and in the long-run — again we must **BUILD ON WHAT WE HAVE FOR WHAT WE NEED.**

A regional grassroots recycling agency is a common feature in many provinces and states. These agencies frequently have a membership of individuals, community organizations, businesses and governments. The range of services provided can be as limited as just operating an information centre or as extensive as marketing materials for members, providing technical assistance, operating a recycling "hot-line", running a speakers bureau and publishing reports, surveys and educational literature. The funding for these services comes from membership fees, user charges, business and government grants and donations.

Manitoba urgently requires such an agency. It could serve as a forum for debate among the many stakeholders in the Waste Minimization Strategy — this will be important for the long run success of the strategy. It could make existing initiatives and agencies more effective. It could provide educational materials and information to the many individuals and groups anxious to know what to do. It could focus the energies of the many people and groups in the province who want to do something, NOW, to reduce our wastefulness.

Such an agency must be geographically and sectorally representative if it is to be effective. The consumers of Thompson have as much interest in waste minimization as the manufacturer in Boissevan. The church group in Lynn Lake is as anxious to start recycling as is the Winnipeg householder.

RECOMMENDATION 36: That the **Minister of Environment** designate a "grassroots coordinating agency" for waste minimization following consultations with community, environmental, business, and municipal organizations. This "agency" should be representative of geographic and sectoral interests in the province and serve as a forum for the debate of waste minimization and recycling issues.

Accelerating Short-term Action

A number of possible projects have been proposed to the committee, particularly in the areas of:

- Community education, information and rural collection
- Transportation and collection infrastructure
- Landfill consolidation
- Marketing assistance to support existing recycling operations
- Composting and research into local economic development opportunities based on the resources available in the waste stream.

RECOMMENDATION 37: That the **Minister of Environment** set as a priority the demonstration of effective and efficient approaches to waste minimization so that these can be implemented as part of this strategy by January 1, 1993.

To ensure that proper priorities are pursued in providing funding and evaluating projects, we need criteria for evaluating specific demonstrations and assessing success or failure. The "waste minimization coordinating agency" discussed previously will be helpful in developing these criteria. Criteria might include — the time frame of the project, the level of partnership in the sponsoring group, the geographic location, the cost effectiveness of the proposal, consistency with this Strategy and the priority given to the waste reduction opportunity.

RECOMMENDATION 38: That the **Minister of Environment** consult with stakeholders on the establishment of clear criteria to evaluate infrastructure development and demonstration. These criteria could also be used to evaluate requests for financial aid in support of waste minimization projects.

Waste Minization Trust Fund

A central fund to support waste minimization demonstration projects could also be helpful in accelerating the development of initiatives. Such a fund could take various forms, but a type of trust fund to which government, business and other groups could make contributions might serve as a useful model. Such trusts have been established already for programs such as wildlife habitat conservation and the disposal of agricultural chemical containers. They fit very well with the concept of trusteeship within a strategy for sustainable development.

The trust fund could be administered by an independent Board of Trustees. Contributions to the Waste Minimization Trust Fund would not relieve distributors of their responsibility to achieve waste reduction targets. A key element of the Fund would be the sponsoring of innovations where it will be valuable to share experiences. The focus of this Fund would be to promote the demonstration of waste minimization projects not to provide sustaining funding.

RECOMMENDATION 39: That the **Manitoba Government** establish a Waste Minimization Trust Fund to provide financial aid for qualified projects demonstrating waste minimization opportunities and furthering education on waste minimization. Further, that the **Board of Trustees** invite, business, other governments and private donors to contribute to the Trust Fund.

Waste Disposal Ground Regulations

The Committee realized early in its consultations that a waste minimization strategy must include a review of our waste disposal system. It was decided to include Residual Management as the "5th-R". Residual management means properly managing those materials which cannot be reduced through the other measures. The management activities include the operation of landfills and holding ponds or tanks to store any remaining waste materials. Collection and treatment of leachate, methane or other decomposition products may be necessary in some cases.

Manitoba has over 450 waste disposal grounds, the vast majority of which are unsupervised. Most of the expenses for this system are paid for by property taxes at a rate in

excess of $20,000,000 per year. Three of these sites have weigh scales, and do charge commercial and industrial users. For the vast majority of us, however, apparently free waste disposal makes the benefits of recycling appear less than they actually are.

Manitoba Environment has drafted an upgraded "Waste Disposal Grounds" regulation for the province. Aside from a requirement for a separate area for bulky metal objects at waste disposal facilities, the new draft regulations contain no provisions for other recovery measures such as segregated material depots or composting.

RECOMMENDATION 40: That **Manitoba Environment** ensure that the implementation of the new, proposed, Waste Disposal Grounds regulations contribute to the success of this Waste Minimization Strategy.

Consolidation of Waste Disposal Grounds

The Committee suggests that the number of landfills in the Province be reduced by consolidating existing sites into larger, upgraded ones. Reducing the number of landfills will permit the remaining facilities to achieve higher levels of protection for the environment. Full time staffing and the provision of weighing and inspection would be possible at the consolidated sites which will help with the implementation and operation of waste reduction and prevention strategies.

Larger sites, serving larger populations, must comply with higher operating standards. Instead of licensing many Class III Waste Disposal Grounds, small population centres could be serviced by waste transfer stations which could expand recycling opportunities for these communities. A fully implemented waste reduction program will reduce the volume of materials being transported to and deposited in Waste Disposal Grounds. In implementing this change, Manitoba Environment should examine providing incentives to operators of Class I and II Waste Disposal Grounds to consolidate and establish facilities providing a higher level of protection of the environment.

Transfer Stations

Waste transfer stations are facilities where small loads of waste are combined into larger loads for transport to a waste disposal facility. These facilities could effectively replace many of the small waste disposal grounds in Manitoba and offer an excellent opportunity for collection and forwarding of source separated materials. Depending on the situation and the population served, transfer stations could include facilities for upgrading, shredding, breaking and/or baling of secondary materials.

Waste Collection and Landfill Charges

Collection of waste, subsidized by municipal governments, is a real financial barrier to encouraging the public and industry to reduce waste. It is a misguided use of property taxes which encourages waste. Pressures on the property tax base encourage municipalities to operate landfills and nuisance grounds at minimum compliance with environmental protection regulations. These pressures to operate at minimal levels merely defer to future generations the cost of such practices.

Moving towards consolidated landfills and transfer stations would be facilitated by the imposition of charges on a user pay basis. Fees charged by municipally operated or sanctioned facilities would be used to pay for all costs associated with operating our upgraded landfills. They would also be used to increase enforcement measures to discourage illegal dumping or littering of wastes.

RECOMMENDATION 41: That the **Manitoba Government** encourage municipalities and Local Government Districts to form waste minimization regions or districts.

RECOMMENDATION 42: That **Manitoba Environment** make consolidation of Waste Disposal Grounds a "principle of application" for the regulations.

RECOMMENDATION 43: That the **Manitoba Government** amend the Municipal Act, and any related Acts, to permit charging a fee for collection and handling of wastes on a quantity related basis.

RECOMMENDATION 44: That the **Manitoba Government** actively encourage municipalities to levy charges for waste collection and handling on the basis of volume of waste identified and substantiated rather than paying for this service through property taxes.

RECOMMENDATION 45: That the **Manitoba Government** provide financial and technical assistance to municipalities to develop waste minimization plans. To be eligible for assistance, consideration must be given to regional cooperation on waste disposal grounds, user fees, and the provision of waste reduction facilities, transfer stations and composting.

Purchasing Policy

A necessary part of "closing the loop" is that we all consider waste minimization and recycling when we make our purchases. Each of us has a role to play.

Large purchasers are especially significant in closing the loop. For instance, the Manitoba Department of Government Services spends an average of $100 million per year buying some of the supplies that provincial government employees use in the course of their work. Additional amounts are spent directly by individual provincial departments. Another major buyer is the City of Winnipeg which annually spends in excess of $50 million to purchase consumable materials and supplies for its own operations. Obviously government purchasing is a major influence on our economy.

The Manitoba Government has shown its support for recycling in its revised purchasing policy. The Government will purchase recycled and environmentally-sensitive products **where practical and effective** while taking environmental considerations into account in its internal operating and disposal decisions. It is the first province to state its preference to use recycled paper, rerefined lubricating oil, sanitary products made with recycled fibre and gasohol. This policy does not imply any increase in government expenditures or taxes. It simply helps products made from recycled materials to compete on a more even footing. The new procurement policy of the Manitoba government is as follows:

Manitoba Government Procurement Policy

The government will purchase recycled and environmentally sensitive products where practical and effective, while taking environmental considerations into account in its internal operating and disposal decisions, and encourage development in industry with respect to supply of recycled and environmentally sensitive products.

Another recent move by the provincial government was a change in the specifications to allow cellulose insulation, made from recycled paper, to compete on an even basis with fibreglass. The committee applauds the activities to date, and would like to see further exploration of waste reduction in government through the use of two-side photocopying, the testing of composting operations in some parks, the promotion of reusable cups at staff coffee machines, etc.

> **RECOMMENDATION 46:** That the **Manitoba Government** give the **Interdepartmental Procurement Committee** a continuing mandate to identify additional opportunities to purchase environmentally responsible products. The existence of that Committee and the procurement policy should be widely publicized.

The government will be required to submit Waste Minimization Plans for its own activities. If cost savings from waste reduction measures can be observed, those savings should be recycled and spent on programs to further reduce waste. This would be a form of a waste diversion credit, which in a small way, could be used to encourage waste

reduction activities. Small scale evaluation of this approach could provide information on the expansion of the approach on a broader scale.

RECOMMENDATION 47: That the **Manitoba Government** tender for recycling services to contribute to the successful implementation of this Strategy.

The current policy applies to goods purchased centrally through the Department of Government Services. This is the right place for the program to start. However, only a small percentage of government spending is conducted by this department, and much more is spent through provincially funded agencies, such as municipalities, school divisions, Crown Corporations, hospitals, and other government funded agencies. Because products containing recycled material, such as paper, can frequently be used without cost or performance problems, every agency receiving provincial funding, above a certain limit, should be required to use the product which assists recycling or preservation of the environment.

RECOMMENDATION 48: That the **Manitoba Government** require, as a minimum standard, the adoption of its procurement policy as a requirement for receiving provincial funding in excess of $100,000.

RECOMMENDATION 49: That all **Provincial Crown Corporations** be required to adopt the procurement policy specified above.

Secondary Material Research and Development

During its public consultations, the Committee was told of many economic opportunities using waste reduction principles and technologies including — refillable bottles, diaper services, writing paper from waste newsprint and magazines, rigid insulation from newsprint, reinforced glass products from cullet, and plastic products from post consumer waste. The success of the Waste Minimization Strategy will be enhanced by conducting research and development into waste reduction activities in Manitoba.

Successful research and development programs focused on waste minimization could create new economic activities and employment in Manitoba. There is great potential to save valuable resources, presently wasted, which could encourage businesses to locate here. At the very least, working locally to develop and implement waste reduction programs will increase our knowledge and expertise in making development sustainable.

RECOMMENDATION 50: That the **Manitoba Government** initiate discussion with the **Federal Government** to put policies in place, and provide funds, to encourage research and development in Manitoba into waste reduction with attendant increase in knowledge and expertise, and industrial potential in the area of environmental sustainability.

RECOMMENDATION 51: That the **Manitoba Government** designate an existing agency to coordinate the development of products and processes which could use secondary materials from Manitoba's waste stream.

Mandated Product Composition

California and Pennsylvania, among other jurisdictions, have introduced mandatory product composition regulations for certain products. For example, newsprint might be required to have a particular percentage of recycled fibre content or glass containers to have a certain amount of recycled glass. While on the surface, such requirements have attraction, the Committee, after reviewing those regulations, believes that they are not appropriate for Manitoba. Firstly, Manitoba's market is too small to have much of an impact by itself upon manufacturers outside of Manitoba. Secondly, exports are crucial to many of Manitoba's manufacturers and such regulations may affect the viability of those exports with a resulting loss to Manitobans. Thirdly, the exports will have to meet the regulations of the importing markets.

Many of the recommendations of the Committee, if adopted, will change the composition of products sold within Manitoba by ensuring they include a consideration of disposal when they are purchased. The recommendations will make waste minimization a cost of doing business within the market system. National regulations are a more effective place to regulate product composition because the mechanisms already exist and national regulations ensure a level playing field across Canada. Increased consumer advocacy for recycled products, will continue to drive the market to increase recycled material content in products at an adequate rate.

RECOMMENDATION 52: That the **Manitoba Government** support national initiatives to encourage the use of recycled materials in products, but not set minimum content criteria.

Waste Minimization and Recycling Equipment

The Strategy calls upon the "distributor" to take responsibility for achieving waste reduction targets. In many cases, new investment will be needed. The Committee recognizes that the Provincial Sales Tax liability on capital equipment purchases could slow the investment process. We suggest that waste minimization and recycling equipment purchased and installed in Manitoba in the future should be eligible for a rebate of the Provincial Sales Tax paid.

RECOMMENDATION 53: That the **Manitoba Government** investigate and implement a program to rebate Manitoba Provincial Sales Tax paid on future purchases of waste minimization equipment.

THE NATIONAL PACKAGING PROTOCOL

In April 1989, the then Canadian Council of Resource and Environment Ministers (CCREM) - now the Canadian Council of Ministers of the Environment (CCME) - stated:

> *"Waste management is an urgent and pressing national problem. Some jurisdictions are already running out of landfill sites, in part because Canada is one of the most wasteful nations. For this purpose Ministers have instructed the Waste Management Committee of CCREM to develop a packaging policy for Canada within a broad review of solid waste management opportunities including government purchasing and recycling policies. It was agreed that targets and schedules for waste minimization be established including a fifty percent (50%) reduction in waste generation by the year 2000.*

The National Packaging Protocol (NAPP) includes the targets to be achieved, relevant background to the development of the Protocol, six packaging policies and the key actions and schedules required to realize each.

Packaging Policies for Canada

- All packaging shall have minimal effects on the environment.
- Priority will be given to the management of packaging through source reduction, reuse and recycling.
- A continuing campaign of information and education will be undertaken to make all Canadians aware of the function and environmental impacts of packaging.
- These policies will apply to all packaging used in Canada, including imports.
- Regulations will be implemented as necessary to achieve compliance with these policies.
- All government policies and practices affecting packaging will be consistent with these national policies.

Implementation

1. **The CCME will monitor the implementation and effectiveness of these policies.**

   Monitoring is essential to determine the effectiveness of these policies in contributing to the overall goal of reducing waste by fifty (50) percent by the year 2000. Monitoring will provide a basis for modifying these policies as necessary, and informing the public of progress.

   Action: A multi-stakeholder group will be established to adopt a plan of action, develop a monitoring mechanism, track progress, and prepare an annual report recommending plan modifications and target revisions.

2. **The CCME will determine the appropriate funding mechanism for the responsibilities of the multi-stakeholder group; other initiatives will be funded by appropriate governments and industry.**

   Stakeholders will ensure those objectives for which they are responsible are met. Each will identify appropriate means for financing those responsibilities. The multi-stakeholder group will have joint responsibilities related to all stakeholders.

   Action: The CCME should consider a variety of funding options for multi-stakeholder activities. Among these could be: charges for waste sent for disposal; industry contributions, federal and provincial funding.

For more information on the National Packaging Protocol, contact the CCME at: Building 30, 139 Tuxedo Avenue, Winnipeg, Manitoba, R3N 0H6, or phone 945-6695.

8. TAKING ACTION

During the past year, members of the Manitoba Recycling Action Committee have spent hundreds of hours debating waste minimization and recycling. We have had contact with thousands of members of the public and with members of special interest groups. We have listened to comments and proposals from a broad perspective and tried to recognize these concerns in the strategy.

The pace of change for recycling in Manitoba has been very rapid during the last year. Curbside collection of household recyclables began on a limited scale in Winnipeg. Abitibi-Price at Pine Falls began to incorporate post consumer waste newspapers into their pulp mix. The tire fire in Ontario captured the headlines for several weeks. The Manitoba Legislature passed the WRAP Act which gave the provincial government many of the powers required to implement this Waste Minimization Strategy.

The Committee has submitted a report which calls for a cooperative arrangement among many parts of society to achieve the waste reduction goals set for Manitoba. These roles have been identified through the recommendations, but a summary is useful.

Roles and Functions for the Waste Minimization Strategy

Provincial Government	- define roles
	- negotiate the targets
	- monitor the progress
	- provide technical assistance
	- provide seed money for infrastructure
Distributors	- meet targets
	- set price signal for consumers
Grassroots	- utilize waste reduction and recycling opportunities
	- consume wisely
	- initiate community based programmes
	- participate in decision-making
Municipal Governments	- minimize municipal waste
	- cooperate in landfill consolidation
	- undertake municipal composting

The Manitoba Government will have a major role to play in the strategy, even if the primary players are necessarily the distributors/brand owners of products and the public as consumers. Manitoba Environment, in particular, will require additional staff and resources to take on the following new activities:

- Monitoring waste reduction action plans
- Monitoring achievement of targets and compliance
- Monitoring the incentive plans for target achievement
- Participating in the "grassroots coordinating agency"
- Participating in the Waste Minimization Trust Fund
- Monitoring the consolidation of waste disposal grounds and transfer stations.

Resources Allocated to Recycling

Province

British Columbia	Allocation of $2 million for solid waste management this year and a staff of four. A five year proposal has been approved in principle for a budget of $150 million, and a staff of 20.
Alberta	Seven people employed in recycling while there are four with Beverage Containers. Budget is approximately $2 million.
Saskatchewan	No specific allocation for Recycling. Staff includes .75 of a staff year.
Manitoba	One staff year, annual budget of $25,000.
Ontario	Twenty-nine staff years allocated to a variety of programs. Expenditures for 1989/90 are estimated to be $24 million, including more than $11 million to support "Blue Box" recycling programs.
Quebec	Current budget is approximately $1 million. Twenty people in Waste Management and 10 in Depot System.
New Brunswick	Current budget is approximately $3 million with a staff of one in recycling and three in Solid Waste Management. Currently proposing a budget of $5 million for five years.
Nova Scotia	No specific budget per se for Recycling. Two full-time staff in Field Services working on Recycling.
Newfoundland	No staffing appropriated to date, however for new fiscal year there is to be a Recycling Coordinator. There is a budget of $55,000 for delivering information programs.
Prince Edward Island	No information available at this time.

The Bottom Line

Manitoba Environment does not have sufficient resources at present to undertake the activities foreseen under the WRAP Act and within this strategy. Additional resources will be required very soon to implement any waste minimization and recycling strategy.

> **RECOMMENDATION 54:** That **Manitoba Environment** be given sufficient additional resources to properly implement the elements of the Waste Minimization Strategy.

The additional resources called for must be financed by some source of funds. Of course, priorities should be re-evaluated and funds transferred to reflect the new priorities. However, it is likely that funds from non-traditional sources will be required to provide the resources for the program.

The Manitoba government took the initiative in its 1989 Budget to levy an Environmental Protection Tax on non-deposit alcoholic beverage containers effective August 1, 1989. The Budget indicated that the funds collected would be used in support of environmental protection initiatives. The tax is collected by the Manitoba Liquor Control Commission at a rate of 5¢ per beer can and bottle of less than 750 ml and 10¢ on beer bottles and bottles of more than 750 ml. The tax was initially collected as a part of the price in effect at the time. Instead of increasing prices, the tax reduced the profits of the MLCC and thus, a transfer from other government revenue.

The Committee sees the proceeds of the Environmental Protection Tax as an initial source of funds to finance the Waste Minimization Strategy. Vigorous steps should be taken to ensure that the funds from this tax are used to implement the Strategy.

> **RECOMMENDATION 55:** That the **Manitoba Government** ensure that all the funds raised by the Environmental Protection Tax announced in the 1989 Provincial Budget be used to implement this Waste Minimization Strategy.

In the longer term, some funds will be raised by predisposal levies on products that fail to meet targets and milestones. However, since the objective of the Strategy is to encourage compliance, revenues from this source are not secure. Most brand owners will be able to avoid the predisposal levy simply by achieving the targets and milestones. Non-polluters do not pay pollution taxes.

The Committee feels that some additional secure, dedicated revenue sources might be necessary to implement the Strategy and the associated waste disposal ground consolidation. The revenue must be raised without removing the spirit of cooperation that will be necessary to achieve the waste reduction goal.

RECOMMENDATION 56: That the **Manitoba Government** investigate and secure other funding sources (as required) to implement this Strategy in the longer term.

TERMS OF REFERENCE

Recycling Action Committee

WHEREAS solid waste in Manitoba continues to increase at a rate far in excess of population growth;

WHEREAS only a limited number of recycling programs have been developed in Manitoba in response to the public's growing interest in recycling;

WHEREAS serious barriers such as weak markets for recyclable materials hinder the development of recycling programs;

THEREFORE, the Minister of Environment, under the authority of Section 5 of the Manitoba Environment Act, hereby establishes a Recycling Action Committee.

Purpose:

The general purpose of the Manitoba Recycling Action Committee is to develop a comprehensive strategy for promoting waste recycling in Manitoba. While the work of the Action Committee will primarily relate to activities in the City of Winnipeg and other urban centres, the intent is to develop strategies that will apply to all parts of the Province.

Terms of Reference:

The Terms of Reference are as follows:

Investigating the Problem

1. To examine all aspects of recycling of specific waste materials (e.g. paper, glass, metals, plastics, oils, chlorofluorocarbons) and specific items (e.g. batteries, tires).
2. To examine the economics of recycling including strategies for addressing market barriers and revenue generation.
3. To summarize existing recycling programs in Manitoba and in other jurisdictions.
4. To identify information requirements to develop and implement a comprehensive recycling program (e.g. waste stream analysis).

Identifying Solutions

5. To examine the applicability and feasibility of recovering materials through such means as recycling depots, "blue box" program etc.
6. To review and make recommendations regarding recycling proposals submitted to the Department of Environment.
7. To make recommendations addressing infrastructure needs, market development and program implementation, including the identification of pilot projects to support the development of an expanded recycling program.
8. To examine possible employment opportunities, including those for the handicapped.

A Consultative Process

9. To ensure public involvement throughout the development of a recycling strategy for Manitoba and through consultations and meetings with the public, industry organizations, municipalities etc.
10. To oversee the organization of a Spring Symposium on Recycling.
11. To prepare a draft report for discussion at the Spring Symposium.
12. To prepare a final report following the Spring Symposium.

Composition:

The Action Committee is appointed by the Minister to represent a cross-section of organizations with a stake in addressing the issue of recycling wastes, including the environmentally concerned public, recycling industries, recycling associations, industry, municipalities and supporters of employment opportunities for the handicapped.

The Action Committee will be chaired by an independent chairperson appointed by the Minister.

To ensure departmental support for the Action Committee, the Committee vice-chairperson will be the Director of Planning, Research and Evaluation, Department of Environment.

Staff Support:

The Department of Environment will provide technical and research staff to support the work of the Action Committee, as well as provide clerical support. The main functions of departmental staff will be to provide technical support, carry out research and pursue pilot projects as directed, and assist in the organization of the Spring Symposium. The Department will submit discussion documents to assist in the work of the Action Committee.

Costs:

The Chairperson of the Action Committee will receive a stipend. The others members of the Committee (to a maximum of 18 members) will be reimbursed for expenses incurred at the rates as set out in the General Manual of Administration (not including salary) for attending meetings, participating in public consultations, and other activities associated with the work of the Action Committee.

Meetings:

The Action Committee will meet on a monthly basis (or as required) and provide the Minister with records of their meetings as well as monthly progress report.

Milestones:

- A discussion paper on recycling to be prepared by or under the direction of the Action Committee to serve as a catalyst for public consultations.
- A draft report for discussion at the Spring Symposium.
- Spring Symposium on Recycling.
- Final Report to Minister.

RECYCLING ACTION COMMITTEE MEMBERS

Chairperson	Vice-Chairperson
Dr. Robert Fenton University of Winnipeg Department of Economics	Mr. Jerry Spiegel, Director Manitoba Environment Planning, Research and Evaluation

Members	Representing
Mr. John Amor	Packaging Association of Canada
Ms. Joyce Agar	Westman Wilderness Club
Mr. John Barker	Manitoba Eco-Network
Mr. Stuart Clark	Mennonite Central Committee
Mr. Jim Ferguson	Recycling Council of Manitoba
Mr. David G. Henderson	Winnipeg Chamber of Commerce
Ms. Jenny Hillard	Consumers Association of Canada
Mr. Tony Kuluk	City of Winnipeg
Mr. Jack Lazereck	Canadian Association of Recycling Industries
Mr. Lance Morrison	Manitoba Soft Drink Association
Dr. Ian Rollo	Manitoba Environmental Council
Mr. Dave Shefford	Thompson Industrial Commission
Mayor Henry Wiebe	Manitoba Association of Urban Municipalities

The Committee would like to acknowledge the support of the staff of Manitoba Environment's Planning Branch —

Daryl Balasko, Kathryn Hepburn, Ryan Kustra, Donna Mekar, Linda Perry, Debbie Sova, Zenon Zalucky, and the Recycling Coordinator, Rod McCormick

MANITOBA SOFT DRINK MSDR RECYCLING INC.

"Recycling Makes Cents in Manitoba"

May 2, 1990

Hon. Glen Cummings
Minister of Environment
Room 344, Legislative Bldg.
450 Broadway
Winnipeg, Manitoba

Re: Recycling Action Committee Final Report

Dear Sir:

As is the case with any committee, especially one set up to review and discuss an issue as complex as waste reduction, full consensus is not always possible. With respect to the Recycling Action Committee, even though I have signed the final report, I am not in full concurrence with all the recommendations it contains. The following represents a review of those recommendations which in their present form are not acceptable in principle and/or require modification of wording.

Recommendations #6 & #7

I believe that the setting of goals and targets can only be properly achieved through an in-depth analysis of the waste stream throughout the Province. The purpose of this analysis should not be just to assist in the setting of objectives, but should be the only basis for setting objectives. The criteria used to rank the waste should include the proportion of the product or material in the waste stream, toxicity and the environmental significance of the material.

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MANITOBA SOFT DRINK MSDR RECYCLING INC.

"Recycling Makes Cents in Manitoba"

If your goal is to achieve waste reduction, then ease of reduction and public concern should have no bearing on the setting of material targets and goals. I would recommend that the two recommendations be combined to read as follows:

"That in order to identify real areas of concern for the development of a Provincial Waste Minimization Strategy, Manitoba Environment undertake a province-wide analysis of all wastes entering the landfill system. The purpose of this study will be to assess all wastes on the basis of: proportion of landfill space, toxicity and the overall environmental significance of the product or material.

This analysis will also serve as the basis for educating the General Public, Government and Industry as to the true nature of the problem. "

Recommendation #8:

In light of the changes in recommendations 6 & 7, I would then propose that recommendation 8 be changed as follows:

"Based on the information gathered during the provincial waste analysis and for the purpose of achieving the established mid-term and end-term waste reduction goals, The Minister of the Environment begin negotiations with those stakeholders identified as being responsible for the targeted wastes. The purpose of the negotiations will be to establish targets of reduction for each product or material type.

If no mutually agreed upon target is reached, an independent panel of arbitration should be established to mediate and impose a target."

While the committee recommendations have emphasized "Public Concern" as being a major consideration for establishing goals and targets, I do not believe that political expediency should be given any consideration. The problem will be properly measured through the study and responsibility assigned at that point.

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Recommendation #10:

I have a concern over the use of the 4-R's hierarchy as a basis for developing a waste minimization strategy. Throughout the document the emphasis has been on the reduction of waste going to the landfill by 50% in the year 2000. At the same time, the document recommends that the industry responsible for that waste also be responsible for meeting a target for their products reduction to landfill to assist in the overall goal. If the industry targeted does not meet their assigned objectives, then that industry will be penalized.

If industry is to be held responsible for the products they produce, then industry should be allowed to reach their objectives through any combination of the 4-R's. While recommendation #10 uses the term "wherever practical", whose definition of practical will be applied?

I would suggest that the last line of the recommendation #10 read as follows:

" The 4-R's hierarchy should serve as a guide to helping industries fulfill their target objectives, but the industry or group charged with meeting a goal or target use whatever combination of the 4-R's they feel is most appropriate for their own response."

Recommendation #23:

I agree that any levies or fines collected for non-compliance or non-performance should go to waste minimization. However, the first priority for these funds should be to bring into compliance the product or materials that triggered the financial penalty. If the material or product was serious enough to be targeted, then it obviously needs to be addressed.

The recommendation should read as follows:

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"Recycling Makes Cents in Manitoba"

"That the Manitoba Government ensure that the proceeds of any such levies or forfeited bonds be used first to bring the the product or material that triggered the penalty into compliance and remaining funds to be used for other waste minimization purposes."

FUNDING:

Throughout the document two themes have been suggested:

1) That industry has a responsibility (with the consumers of it's products), to ensure that those materials or products they produce and/or distribute are diverted from landfill. Industry will be required to put in place programs and/or technologies to ensure compliance to whatever targets are set. If compliance is not reached or industry avoids the responsibility, then Government as the protector of public good will step in and penalize the industry involved. Under this model, Government is not supposed to be involved in programs nor program decisions.

What funds does government require? Obviously, Government will require funds to police the system and perhaps to provide support in areas of R & D, as is their role now for industries in the non-environmental sector.

The problem throughout the document is that another theme has also emerged which runs contrary to the above.

2) Under this theme, Government will require funds up-front to provide program funding, program co-ordination and educational programs.

Will industry be required to meet these new financial obligations? What if in being forced to meet these new obligations, industry is required to support initiatives which may hinder an industry's ability to meet its targets? Will an industry's contribution in the form of taxes at the beginning of the strategy, absolve the industry of penalty in the event that their targets are not met?

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Manitoba Industries are, I believe, quite prepared to accept their responsibilities towards reducing waste to landfills. However, the rules must be both fair and consistent with national programs and strategies.

The Soft Drink Industry has been a leader both here in Manitoba and throughout Canada in recognizing it's responsibilities to it's customers and the environment. I hope that our Industry can be a model of co-operation and achievement for other industries to follow.

Thank you for your time and consideration. If you have any questions please do not hesitate to call.

Sincerely,

Lance Morrison
General Manager
Manitoba Soft Drink Recycling Inc.

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Information Hotline (204) 694-5352
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PACKAGING ASSOCIATION of CANADA
ASSOCIATION CANADIENNE DE L'EMBALLAGE

Packaging Association of Canada
Association canadienne de l'emballage

111 Merton Street, Suite 201, Toronto, Canada M4S 3A7
Fax (416) 487-2217

Tel. (416) 485-7812
Toll Free 1-800-387-8875

The Honorable Glen Cummings,
Minister of Environment,
Government of Manitoba,
Legislative Building,
Winnipeg, Manitoba
R3C 0V8

May 2, 1990

cc : Recycling Action Committee

Dear Minister:

While the Packaging Association of Canada is a signator to the Recycling Action Committee's Action Plan, it is to be understood that endorsement is conditional on the following observations being included:

GENERAL AND SPECIFIC OBSERVATIONS ON THE DRAFT REPORT OF THE RECYCLING ACTION COMMITTEE.

GENERAL OBSERVATIONS

As a member of the National Packaging Task Force, the Packaging Association of Canada is committed to helping achieve a 50 per cent diversion of packaging waste from landfill sites by the year 2000.

While the 50 per cent objective has been approved by the Canadian Council of Environment Ministers, the target appears to be based more on political considerations than on scientific or economic evaluation.

If industry is expected to meet the NAPP targets, some of which are mirrored in the recommendations of the Recycling Action Committee report to the Minister, a number of fundamental economic and political policies will have to be implemented by both the federal and provincial governments. In addition, the success of these programs will also require the cooperation of municipalities, consumer and environmental organizations, institutions, etc.

A major failing of the proposed Manitoba recycling strategy is the absence of an evaluation of the costs of the proposals in terms of their economic impact on Canadian industry, and it's ability to compete under the Free Trade Agreement with the United States, or under GATT with Europe, Japan and other Asian countries.

It is important to recognize that some of these policies could have detrimental impacts on the Canadian manufacturing sector, particularly if they are not practised by Canada's trading partners. This will be especially true in less populated sectors

of Canada, where achieving world scale production runs is, at best, difficult. Any added cost, without a similar undertaking by a foreign competitor, will further weaken our ability to compete.

While Canada has adopted a 50 per cent waste diversion policy, the Conference of Northeastern Governors (CONEG), representing nine U.S. states, have accepted the following: "There will be no increase, on a per capita basis, in packaging waste generation over 1989 rates." In other words, the economic burden placed on Canadian industry to comply with the National Packaging Protocol is far heavier than our U.S. competitors.

This is not to say that one country's policy is right and the other's is wrong. Rather, it is important that all the stakeholders - including the public - are aware of all the facts and of their consequences.

For instance, Canadian manufacturers pay between 14 and 16 per cent more in corporate income and business taxes than do their U.S. counterparts. In many provinces, Canadian firms pay total hospitaization for their employees, their WHMIS costs, etc. Again, U.S. manufacturers are not required to pay for these types of programs.

Canadian industry is also being asked to "voluntarily" fund provincial curbside recycling programs. While this is yet to happen in Manitoba, Canadian producers in Ontario and Quebec are contributing 0.03 per cent of their sales in those provinces to the curbside service. Again, U.S. corporations are exempt from this tax. The levy and performance bond recommendations in the R.A.C. Action Plan would present major disadvantages to Manitoba businesses.

While the actual environmental cost may not be that high, the cumulative effect of all the costs borne by Canadian industry is quickly eroding our ability to compete. This is already taking its toll. Not only have a number of Canadian firms closed their doors, some, just to survive, have moved their operations to the United States.

Last year, 80 firms from southern Ontario relocated in Buffalo, N.Y. That city's Chamber of Commerce is currently handling more than 600 additional information requests from Canadian firms.

Another major problem facing industry from Manitoba, and other provinces, is the difficulty in selling their products from one province to another, especially when this involves government contracts.

Interprovincial trade barriers, which are practised by all provinces, including Manitoba, are one of the most insidious economic factors industry has to deal with in this country. If,

for example, a Manitoba recycling firm bids on a Quebec contract to supply recycled plastics, and even though its bid is substantially less than that of a Quebec competitor, it will not be awarded the contract. How then are Canadian firms to become competitive with U.S. companies when our own governments artificially restrict trade?

As noted earlier, it does not appear that the environmental playing field is level between Canada and the U.S., in that Canadian industry has a much heavier burden to shoulder. However, we must be careful that any policies instituted in Canada to address this problem do not result in retaliatory measures against Canadian exports.

In addition, the Canadian market is already flooded with goods which do not meet Canadian labelling regulations and standards. This trend is increasing, with disastrous results for Canadian producers, and this will become even more serious as the harmonization clause under the Free Trade Agreement takes effect. Given that Canada is already apparently unable to enforce current requirements for packaging entering this country, there is concern that imports will escape other measures adopted here which affect Canadian industry,such as those in the Action Plan.

In the area of government procurement, there are few national or even provincial policies to purchase recycled materials. In addition, consumers - including avowed environmentalists - have not "put their money where their mouths are" when it comes to buying more environmentally responsible products. Will the government of Manitoba use plastic lumber for outdoor construction, highway signs, office furniture? Will the consumer do likewise, even though a recycled product may cost more? A recent survey of consumers by the Grocery Products Manufacturers Association showed that 60 per cent <u>would not</u> be willing to pay higher prices for more environmentally sound products.

The National Packaging Task Force, as well as the Recycling Action Committee, recognize the need for research and development to help achieve the 50 per cent goal.

While there is no question research and development is required, Canadian firms are at a major disadvantage to competitors from the United States, Europe and Japan in conducting R & D. To begin with, Canadian firms are generally much smaller, and have a more difficult time in building up enough cash reserves to initiate R & D programs. Secondly, Canada is the only major country in the Western world without any R & D tax incentive program to remedy this situation.

It is important to recognize that Canada, along with most of the world, is just at the initial stages of developing the type of infrastructure required to carry out the mandate of the National

Packaging Protocol. It will be both time consuming and expensive.

For example, the first plant in North America to recycle mixed soiled industrial plastics was officially opened in Brantford, Ontario April 18, 1990. The Resource Plastics plant, which can process 30 million pounds of material a year, took two years to complete, at a cost of more than $5-million. ($600,000 was a government of Ontario grant). However, the plant's president told a press conference that the Brantford operation can only be considered a "pilot project". He estimates that to be competitive on a world class basis will require processing upwards of 200 million pounds of plastics a year, on a fixed capital cost of between $25-million and $30-million.

The Atlantic Packaging de-inking plant being built in Ajax, Ontario has taken about three years to complete, at a cost of about $175-million. Canada requires at least a dozen plants costing from $100-million to $300-million.

HOW TO HELP

There are a number of ways in which the Manitoba government and other stakeholders can help create an environment in which Canadian industry can move more confidently in undertaking the various capital programs required to meet the 50 per cent diversion objectives.

* Lobby all levels of government to eliminate provincial trade barriers.

* Institute governmental, institutional and industrial procurement policies that encourage the development of more environmentally responsive packaging. (Note - Most consumer and industrial packaging being used today meets the criteria of environmental soundness).

* Institute a national research and development tax incentive program, as well as other tax incentives, to help Canadian industry move forward.

* In situations where industrial layoffs are attributable to satisfying environmental objectives, the responsibility for retraining and re-employing workers becomes the responsibilty of all stakeholders - not just industry.

* Institute development grants to undertake major capital projects. (Note- It will be necessary to ensure that such grants do not violate the GATT or Free Trade Agreement).

* The federal and provincial governments must lobby their U.S. counterparts to change their policies to conform more closely to those in this country.

* Both the federal and provincial governments must create a better policing structure to prevent goods from entering Canada illegally.

* Provide relief from rapidly increasing tipping fees for waste generated as a result of bona fide recycling initiatives.

SPECIFIC OBSERVATIONS

Recommendation #2

* Based on current manufacturing and scientific technology, there is little scope remaining for reduction and reuse of packaging. This should be noted under the second recommendation, as it appears most diversion can only be achieved under recycling initiatives.

Recommendation #3

* The diversion target established under point two, as noted earlier, seems to be politically inspired, rather than being set on a pragmatic basis. It must be noted that 60 per cent of packaging is consumed in the food industry, primarily to meet health and safety regulations. These regulations, which dictate much of the packaging on the market, have become even stricter in recent years, especially in the area of prevention of product tampering.

Recommendation #7

* In that we feel verified data, rather than popular opinion, should be the determining factor in formulating action plans, we suggest that a more appropriate wording for point seven would be: "That the Minister of Environment negotiate waste reduction targets with stakeholders in order to accomplish the interim and year 2000 goals. The bases of negotiation should include the proportion of product or material in the waste stream. In addition, the proper authorities should examine the levels of toxicity or other problems in the landfill, the ease of reduction, and the environmental significance of the product or material."

Recommendation #15

* The absence of a defined threshold figure under point fifteen is totally ridiculous. Such a variable could require every "Ma and Pa" enterprise in the province to file.. A figure of $10-million to $15-million as a minimum would make more sense. Even under this minimum, will the government, or institutions, etc., also be required to file for distributing leaflets, brochures, etc.? Even though the material may not be sold, it could have as much impact on the environment.

Recommendation #20

* Point twenty makes one wonder if governments talk to each other. Canadian industry is currently being asked to apply for the Federal Government's "Ecologo", as well as a different logo by each of the provinces. We will have so many logos or symbols to put on a package, it's size could double just to accomodate them all. In addition, none of these would be recognized internationally. The production cost alone would drive up the price of Canadian goods so that we would not be able to compete. More importantly, the reason for the establishment of the National Packaging Protocol was to avoid this type of duplication and cost. The industry is frustrated that this type of recommendation was even put forward. One wonders if its drafters have any idea of what is going on in Canada and the rest of the world.

Recommendations #21 and #22

* The topics addressed under points twenty-one and twenty-two should be dealt with under the National Packaging Protocol. Industry in Manitoba might as well close shop if it adopts different standards than the rest of the country. In addition, any kind of guidelines, targets, milestones, must be based on objective criteria, such as the attempt being made by the Canadian Standards Association along with industry.

Recommendations #31, #32 and #33

* Based on the interaction the packaging industry has had with government, consumers and environmental groups, there is a great misunderstanding about the function of packaging. Any educational program the province undertakes, as proposed under points thirty-one, thirty-two and thirty-three, must include an informed discussion on the role of packaging. The industry is tired of being cast as the "bad guy" when it is diligently attempting to meet the numerous health, safety and informational needs of society.

Recommendations #34 and #35

* These sections should carry the additional words "and feasible". There are excellent reasons for the federally imposed constraints concerning the use of recycled materials in food packaging.

Recommendation #39

* This item, and the implied duress on industry to "donate" to a trust fund, (especially while other measures are being taken to establish performance bonds and levies), is totally unacceptable. If funding of programs is to be a responsibilty of industry, it can

only be on a nationally consistent basis, such as in the model described earlier in place in Ontario and Quebec.

Recommendation #55

* To specifically direct funds to the much needed Research and Development required to achieve the goals, we recommend modifying point fifty-five, to replace "...this minimization strategy." with the words "...progressive programs related to waste minimization, including funding of Research and Development."

While there are a number of specific points which could cause problems for industry, it is the recommendation of the Packaging Association of Canada that the Manitoba Government adopt the National Packaging Protocol as the basis for its policies. Many of the areas covered by individual recommendations in the Manitoba document have been more thoroughly examined by the national body - including the needs of specific provinces such as Manitoba.

Signed on behalf of

THE PACKAGING ASSOCIATION OF CANADA,

A. John Amor,
Environmental Liaison Director,
P.A.C. Prairie Chapter

AJA/me